



LIBRARY
OF THE
UNIVERSITY
OF ILLINOIS

507
F45

1933-35

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. **You may be charged a minimum fee of \$75.00 for each lost book.**

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

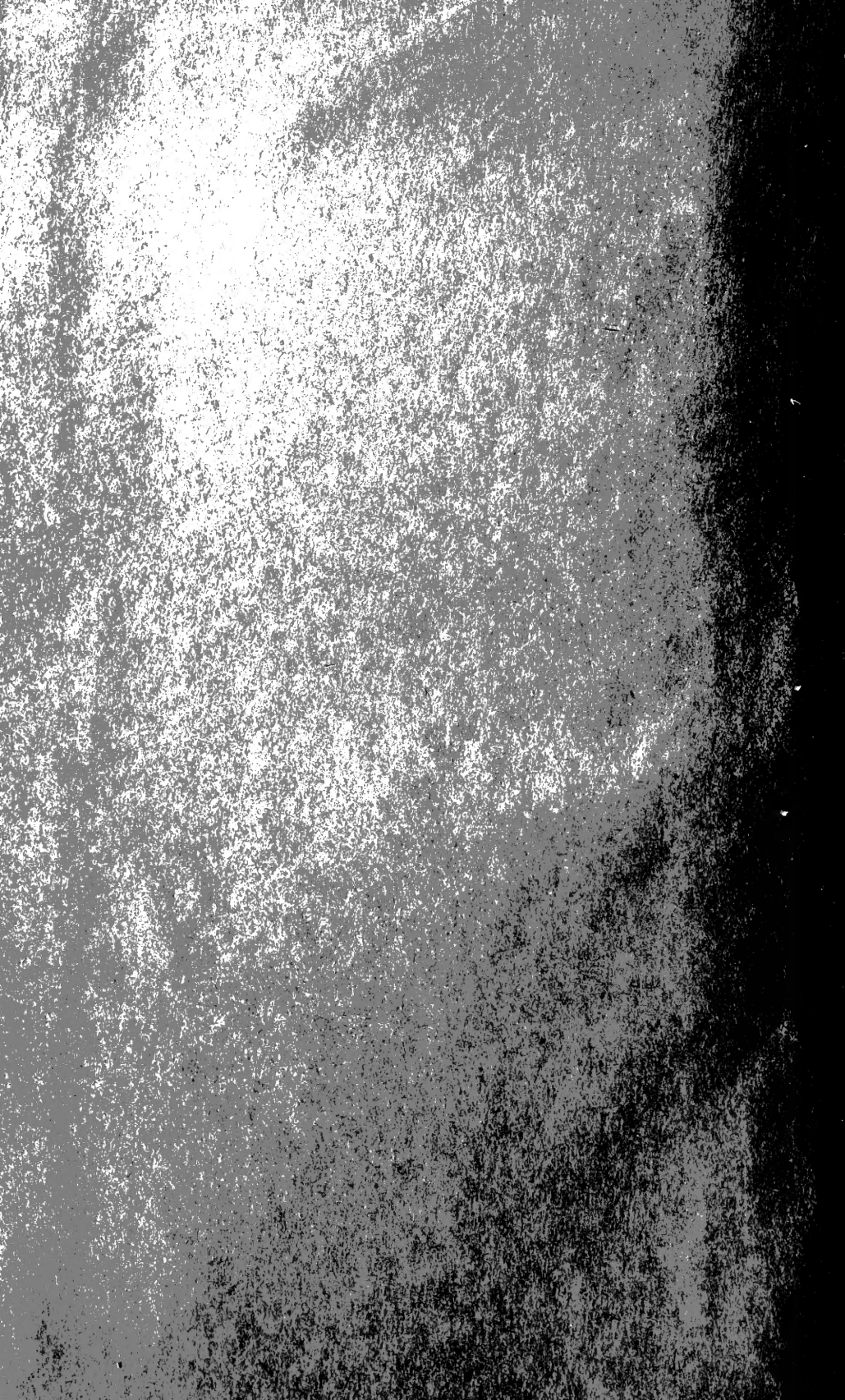
TO RENEW CALL TELEPHONE CENTER, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

APR 04 1995
APR 25 1995

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

L162





MRS. JAMES NELSON RAYMOND
Benefactor and Founder of the James Nelson and Anna Louise Raymond Foundation
for Public School and Children's Lectures

FIELD MUSEUM OF NATURAL HISTORY

FOUNDED BY MARSHALL FIELD, 1893

PUBLICATION 328

REPORT SERIES

VOL. X, No. 1

ANNUAL REPORT OF THE DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1933

THE LIBRARY OF THE

MAY 16 1934

UNIVERSITY OF ILLINOIS



CHICAGO, U. S. A.

JANUARY, 1934 ◦

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, _____

Cash 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 under Article 251 of Regulation 69 relating to the income tax under the Revenue Act of 1926.

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 tax-free and are guaranteed against fluctuation in amount.

F(45)
1101

507
F45
1933-35

CONTENTS

	PAGE
List of Plates	5
Officers, Trustees and Committees, 1933	7
Former Members of the Board of Trustees	8
Former Officers	9
List of Staff	10
Report of the Director	11
Department of Anthropology	31
Department of Botany	44
Department of Geology	54
Department of Zoology	66
The N. W. Harris Public School Extension	74
James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures	76
Lectures for Adults	80
Library	82
Division of Printing	85
Divisions of Photography and Illustration	86
Division of Publications.	87
Division of Public Relations	88
Division of Memberships	90
Cafeteria	91
Comparative Attendance Statistics and Door Receipts	92
Comparative Financial Statements	93
List of Accessions	94
List of Members	109
Benefactors	109
Honorary Members	109
Patrons	109
Corresponding Members	110

944029

11
2 41

Contributors	110
Corporate Members	111
Life Members	111
Non-Resident Life Members	113
Associate Members	114
Non-Resident Associate Members	128
Sustaining Members	128
Annual Members	128

LIST OF PLATES

	FACING PAGE
I. Mrs. James Nelson Raymond	1
II. The Late Dr. Oliver Cummings Farrington	16
III. A Section of Chauncey Keep Memorial Hall	20
IV. Racial Types of India	28
V. Sun-Worship at Carnac Alignment, Neolithic Period, Brittany, France	32
VI. South End of Hall of Plant Life	48
VII. Tobacco Plant (<i>Nicotiana tabacum</i>)	50
VIII. Fossil Skeleton of Ground Sloth in the Matrix, Pampa Formation, Argentina	54
IX. Selenite Crystals from Chile	56
X. Orang or Orang-utan, Borneo	64
XI. African Lion	68
XII. Type of Case Loaned to the Schools of Chicago by the N. W. Harris Public School Extension	76

OFFICERS, TRUSTEES AND COMMITTEES, 1933

President

STANLEY FIELD

First Vice-President

ALBERT A. SPRAGUE

Second Vice-President

JAMES SIMPSON

Third Vice-President

ALBERT W. HARRIS

Secretary

STEPHEN C. SIMMS

Treasurer and Assistant Secretary

SOLOMON A. SMITH

BOARD OF TRUSTEES

SEWELL L. AVERY

WILLIAM H. MITCHELL

JOHN BORDEN

FREDERICK H. RAWSON

WILLIAM J. CHALMERS

GEORGE A. RICHARDSON

MARSHALL FIELD

FRED W. SARGENT

STANLEY FIELD

STEPHEN C. SIMMS

ERNEST R. GRAHAM

JAMES SIMPSON

ALBERT W. HARRIS

SOLOMON A. SMITH

SAMUEL INSULL, JR.

ALBERT A. SPRAGUE

CYRUS H. MCCORMICK

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, James Simpson, Solomon A. Smith, Frederick H. Rawson, John P. Wilson.

Building.—William J. Chalmers, Cyrus H. McCormick, Samuel Insull, Jr., Ernest R. Graham, William H. Mitchell.

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

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

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
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
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
HARRY E. BYRAM	1921-1928
D. C. DAVIES*	1922-1928
CHARLES H. MARKHAM*	1924-1930
WILLIAM V. KELLEY*	1929-1932

*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

Treasurers

BYRON L. SMITH*	1894-1914
---------------------------	-----------

Directors

FREDERICK J. V. SKIFF*	1893-1921
D. C. DAVIES*	1921-1928

*DECEASED

LIST OF STAFF

STEPHEN C. SIMMS, *Director*

DEPARTMENT OF ANTHROPOLOGY.—Berthold Laufer, *Curator*; A. L. Kroeber, *Research Associate in American Archaeology*. ASSISTANT CURATORS: Albert B. Lewis, *Melanesian Ethnology*; J. Eric Thompson, *Central and South American Archaeology*; Paul S. Martin, *North American Archaeology*; Wilfrid D. Hambly, *African Ethnology*; Henry Field, *Physical Anthropology*; T. George Allen, *Egyptian Archaeology*.

DEPARTMENT OF BOTANY.—B. E. Dahlgren, *Acting Curator*; Paul C. Standley, *Associate Curator of the Herbarium*; J. Francis Macbride, *Assistant Curator of Taxonomy*; Samuel J. Record, *Research Associate in Wood Technology*; A. C. Noé, *Research Associate in Paleobotany*; Llewelyn Williams, *Assistant Curator of Economic Botany*.

DEPARTMENT OF GEOLOGY.—Oliver C. Farrington,* *Curator*; Henry W. Nichols, *Acting Curator*; Elmer S. Riggs, *Associate Curator of Paleontology*; Sharat K. Roy, *Assistant Curator of Geology*; Bryan Patterson, *Assistant in Paleontology*.

DEPARTMENT OF ZOOLOGY.—Wilfred H. Osgood, *Curator*. MAMMALS: Colin C. Sanborn, *Assistant Curator*; Julius Friesser, C. J. Albrecht, A. G. Rueckert, *Taxidermists*. BIRDS: C. E. Hellmayr, *Associate Curator*; Rudyerd Boulton, *Assistant Curator*; Boardman Conover, *Research Associate*; R. Magoon Barnes, *Assistant Curator of Birds' Eggs*; Ashley Hine, *Taxidermist*. AMPHIBIANS AND REPTILES: Karl P. Schmidt, *Assistant Curator*; Leon L. Walters, *Taxidermist*. FISHES: Alfred C. Weed, *Assistant Curator*; Leon L. Pray, *Taxidermist*. INSECTS: William J. Gerhard, *Associate Curator*; Emil Liljeblad, *Assistant*. OSTEOLOGY: Edmond N. Gueret, *Assistant Curator*; Dwight Davis, *Assistant*. ARTIST: Charles A. Corwin.

N. W. HARRIS PUBLIC SCHOOL EXTENSION.—Stephen C. Simms, *Acting Curator*; A. B. Wolcott, *Assistant Curator*.

JAMES NELSON AND ANNA LOUISE RAYMOND FOUNDATION.—Margaret M. Cornell, *Chief*; Franklin C. Potter, Miriam Wood, *Guide-lecturers*.

LIBRARY.—Emily M. Wilcoxson, *Librarian*; Mary W. Baker, *Assistant Librarian*.

ADMINISTRATION.—Clifford C. Gregg, *Assistant to the Director*; Benjamin Bridge, *Auditor*; Henry F. Ditzel, *Registrar*; Elsie H. Thomas, *Recorder—in charge of publication distribution*; H. B. Harte, *Public Relations*; Pearle Bilinske, *Memberships*; J. L. Jones, *Purchasing Agent*.

PRINTING.—Dewey S. Dill, *in charge*; Lillian A. Ross, *Editor and Proofreader*.

PHOTOGRAPHY AND ILLUSTRATION.—C. H. Carpenter, *Photographer*; Carl F. Gronemann, *Illustrator*; A. A. Miller, *Photogravurist*.

MAINTENANCE.—John E. Glynn, *Superintendent*; W. H. Corning, *Chief Engineer*; W. E. Lake, *Assistant Engineer*.

*DECEASED

ANNUAL REPORT OF THE DIRECTOR

1933

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, 1933.

Like the preceding year, 1933 was marked by severely adverse financial conditions, which caused a further decline in the value of securities held in Field Museum's endowment funds, as well as a reduction in income from endowments, contributions, and memberships. However, revenue from admissions and sundry receipts increased \$41,215.62, due entirely to the large number of visitors who came to Chicago for A Century of Progress exposition.

The budget adopted was very much reduced, and economies were put in force throughout the year, with the result that expenses were kept well below the appropriations, in spite of increased expense incurred through the necessity of handling record attendance during a period of several months.

The increase in paid admissions, and the savings in expenses, together with a special contribution of \$13,272.23, enabled the Museum to reduce notes payable, caused by previous years' deficits, from \$156,100 to \$105,000.

There were no expeditions except those financed by funds especially contributed for that purpose.

Notwithstanding forced economies, service to the public was maintained in full, and never before have so many persons been reached by the educational influences of this institution.

Visitors to the Museum during the year numbered 3,269,390, an attendance exceeding that ever attained in a single year by any museum in the United States, and probably a high record for the entire world. The increase over 1932 attendance is 1,455,188, or 79 per cent. This compares with an increase of 20 per cent in 1932 over 1931. Extra-mural educational activities conducted by the Museum benefited approximately 661,000 persons, mostly children, making a total of more than 3,930,000 for whom the institution functioned as a source of information. It is worth noting also that, impressive as this figure is, it does not take into consideration others, whose numbers are incalculable, reached by the institution indirectly through such media for the dissemination of knowledge as Museum

publications and leaflets, *Field Museum News*, the many accounts of Museum activities published in newspapers and magazines, broadcasts from radio stations, motion picture newsreels, and various other channels.

Of the 3,269,390 visitors to the Museum, only 212,298 or 6½ per cent paid admission. All the rest, numbering 3,057,092, either came on free days, or belonged to classifications such as children, teachers, students, and Museum Members, who are granted free admissions on pay days. The highest attendance for any single day occurred on Thursday, August 24, when there were 65,966 visitors.

Lecturers from the Museum, sent to the schools by the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures, spoke before 160,750 children in their classrooms and assemblies, the talks being illustrated with stereopticon slides. Daily throughout the school year approximately 500,000 children had available for study in their schools (and also in various community centers and other institutions) the traveling natural history exhibits circulated by the Department of the N. W. Harris Public School Extension of Field Museum. Deliveries and collections of these cases are made on a regular schedule which provides each public school in Chicago, and numerous private schools and other institutions, with two new cases at intervals of two weeks.

In addition to the extension lectures in the schools, the Raymond Foundation provided at the Museum twenty-two moving picture programs and 284 guide-lecture tours for children. These were attended by 37,420 children (included in the Museum's general attendance figures), which, added to the extension lecture attendance and the audiences at various special meetings, brings the total reached by the activities of the Foundation, both inside and outside the building, to 212,179.

Eighteen lectures on travel and science were given on Saturday afternoons during March and April, and October and November, in the James Simpson Theatre, and were attended by 22,787 adults. Also there were provided 422 guide-lecture tours for adults, which were participated in by 13,412 persons.

Captain G. Allan Hancock, of Los Angeles, and Dr. Harry M. Wegforth, President of the Zoological Society of San Diego, California, were elected Patrons of the Museum. This was done in recognition of Captain Hancock's sponsorship of an expedition which obtained excellent specimens of elephant seals for the Museum, and in recognition of the services of both Captain Hancock and Dr.

Wegeforth in organizing and personally participating in the work of this expedition.

Dr. B. P. Georges Hochreutiner, Director of the Conservatoire et Jardin Botaniques at Geneva, Switzerland, was elected a Corresponding Member of the Museum in recognition of important assistance he has rendered to Field Museum in its joint botanical project with the Rockefeller Foundation. Through Dr. Hochreutiner's cooperation the important collections of type specimens of plants in the institution he heads were made available for photographing, which resulted in an exceedingly important contribution to the collection of type specimen photographs. These now number approximately 26,000 negatives.

Five names were added to the list of Contributors to the Museum. Prince M. U. M. Salie, of Galle, Ceylon, was elected a Contributor in recognition of his gift to the Museum of a collection, valued at \$5,000, of fifty-five precious stones representing the principal varieties found in Ceylon. Mr. Leon Mandel and Mr. Fred L. Mandel, Jr., were elected Contributors in appreciation of their generous contributions of funds which made possible the Mandel-Field Museum Zoological Expedition to Venezuela in 1932. Master Stanley Field Blaschke was elected a Contributor in recognition of a gift of \$1,000 in cash made in his name by his father, Mr. Frederick Blaschke, of Cold Spring-on-Hudson, New York. Miss Malvina Hoffman, of New York and Paris, was elected a Contributor in recognition of the gift of a limestone bust of a Chinese boy which she sculptured.

Mr. Knox Hearne, of New York, was elected a Non-Resident Life Member. A list of Members in all classes will be found at the end of this Report (p. 109).

The Museum suffered a severe loss in the death of Dr. Oliver Cummings Farrington, Curator of the Department of Geology for thirty-nine years. At its meeting held on November 20, the Board of Trustees adopted the following resolution in honor of Dr. Farrington:

"In the death on November 2, 1933, of Dr. Oliver Cummings Farrington, Curator of Geology at Field Museum of Natural History since 1894, the Board of Trustees is sorrowfully aware of the loss of one of the oldest, and one of the ablest, members of the Museum Staff. Dr. Farrington had been associated with this institution, as head of its Department of Geology, from the very beginnings of its active functioning as a scientific organization.

“In scientific circles Dr. Farrington was regarded with extreme respect and admiration not only for the very successful work he did in building up Field Museum’s geological collections and activities, but also as a great scholar, and one of the world’s foremost authorities on gems and gem minerals, and on meteorites.

“The tremendous breadth of his knowledge of all divisions of the science of geology, and his outstanding skill in museum work, have their permanent monument in the exhibits occupying the various halls of his Department, which bear throughout the evidences of his mastery of the subjects they illustrate. Learned to the highest degree, he was supremely possessed of that faculty which makes the ideal museum man—the ability to translate his erudition into forms easily intelligible to the least-read layman. He was, thus, a great educator, spreading knowledge to the millions of people visiting the exhibits for which he was responsible.

“Dr. Farrington frequently went out into the field to collect material for the Museum, his most important undertaking of this kind having been as leader of the Marshall Field Geological Expedition to Brazil in 1922–23. He was the author of important scientific publications issued by Field Museum and other publishers. He had achieved note as a teacher of science in academies and universities, and was an officer and fellow of prominent scientific societies. Great expositions sought and received his advice and assistance in their scientific divisions. Some years ago the Trustees of Field Museum elected him a Life Member of this institution.

“In his passing the Trustees recognize the loss of a man of broad intellect and high character, whose devotion to science resulted in a career of splendid achievements.

“Therefore, be it resolved, that this expression of the Trustees’ appreciation of Dr. Farrington’s many years of loyal and valuable service to the Museum and to science, be permanently preserved on the records of the Board;

“And be it further resolved that our deep sympathy be conveyed to his bereaved family, and that a copy of this resolution be transmitted to his widow.”

A memorial resolution was adopted also by the Director, scientific staff, and entire personnel of the Museum.

News of the death on April 20 of Dr. William Henry Holmes was received with regret. Dr. Holmes was the first Curator of Anthropology of this institution, having joined the staff in 1894,

and served for several years. Later he became head curator of anthropology of the United States National Museum, and director of the National Gallery of Art in Washington.

At the Annual Meeting of the Board of Trustees, held January 16, President Stanley Field was re-elected for the twenty-fifth time; Second Vice-President Albert A. Sprague was elected First Vice-President, filling the vacancy caused in that office by the death, in August, 1932, of Mr. Martin A. Ryerson; Third Vice-President James Simpson was elected Second Vice-President, and Trustee Albert W. Harris was elected Third Vice-President. Mr. Solomon A. Smith, Treasurer and Assistant Secretary, and the incumbent Director and Secretary, were re-elected to their respective offices. Two vacancies on the Board, caused by the deaths in 1932 of Trustees William V. Kelley and Martin A. Ryerson, remained unfilled during 1933.

The year was noteworthy for the number of exhibits which were completed and opened to public view. The most important of these were the sculptures representing the principal races of mankind in Chauncey Keep Memorial Hall (Hall 3), and the restorations illustrating types of prehistoric men and various phases of their cultures in the Hall of the Stone Age of the Old World (Hall C). Both these new halls are unique in their fields—no other institution has exhibits treating these subjects on the scale undertaken here. Their preparation involved years of research and extensive expeditions to gather data and material in various parts of the world.

Chauncey Keep Memorial Hall has been made possible by a large bequest from the late Chauncey Keep, for many years a Trustee of the Museum, and by generous contributions from Mrs. Stanley Field and Mrs. Charles H. Schweppe, of Chicago, and Trustee Marshall Field. The hall contains nearly a hundred life-size sculptures, including full-length figures, busts, and heads, chiefly in bronze, illustrating the principal racial types of the human species as they exist today, and depicting their physical characteristics. The types shown range from primitive peoples still living in remote jungle places but in danger of extinction in the near future under the advance of the white man's civilization, to the most highly cultured peoples of the world. All the sculptures are the work of Miss Malvina Hoffman, well-known sculptor of New York and Paris, who spent some three years on the task of their execution, traveling practically around the world to obtain the most representative living models of the various races in their native lands. The

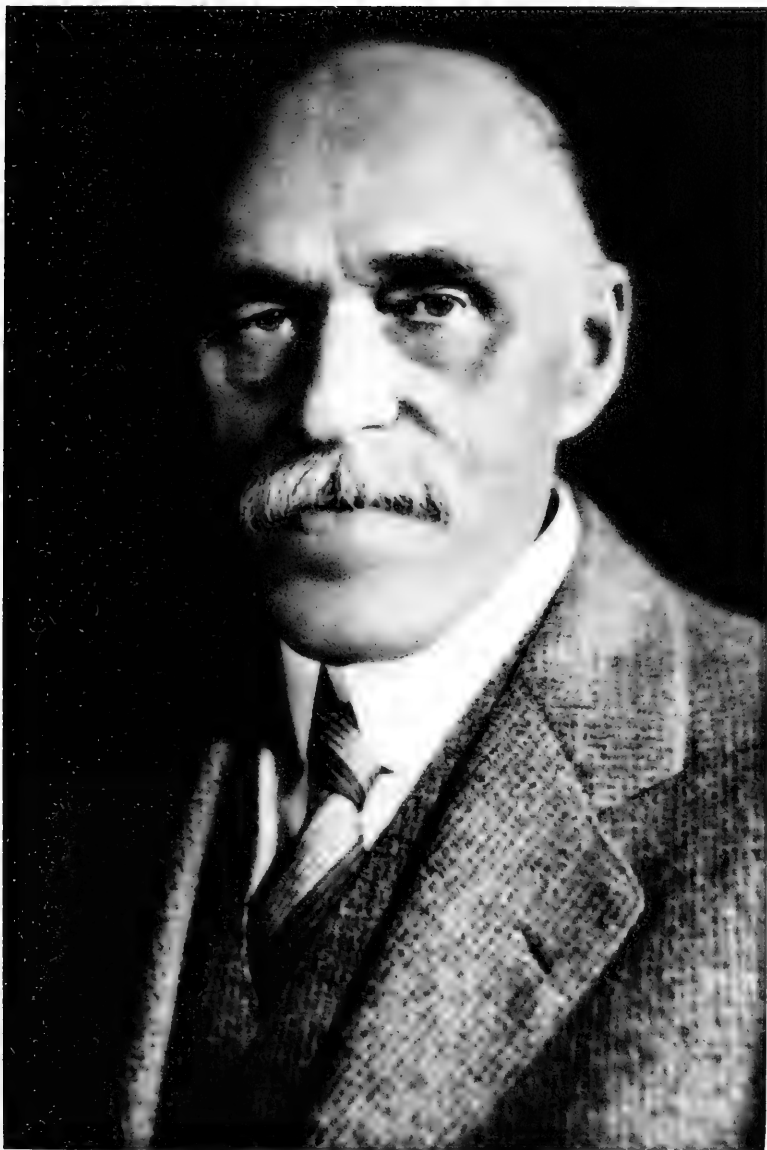
monumental sculpture in the center of the hall is a gift from Mrs. Schweppe. This group of figures, in heroic size, of a white, a black, and a yellow man, symbolizes the "Unity of Mankind."

The various expeditions since 1927, preliminary to the preparation of the Hall of the Stone Age of the Old World, were financed by Mr. Marshall Field. Among other principal contributors to the cost of creation of this hall are Trustees Frederick H. Rawson and Silas H. Strawn. The principal feature of the hall consists of eight reproductions of actual prehistoric sites in Europe, with life-size restorations of men of the various periods represented. These groups are the work of Mr. Frederick Blaschke, well-known sculptor of Cold Spring-on-Hudson, New York. The backgrounds were painted by Staff Artist Charles A. Corwin. The general plan of the hall was worked out, and its execution supervised, by Assistant Curator Henry Field, in collaboration with Dr. Berthold Laufer, Curator of the Department of Anthropology. The subjects of the groups are the Chellean, Neanderthal, Aurignacian, Solutrean, Magdalenian, Azilian, Neolithic, and Swiss Lake Dweller periods of man's development, covering a span of from about 250,000 down to 8,000 years ago. Supplementing the groups are extensive series of archaeological collections and other exhibits bearing upon man's progress through the ages from approximately one million years ago.

Another important addition to the Department of Anthropology during the year was made by the installation in Alcove A1, between Halls A and E, of a collection representing the ethnology of the aboriginal tribes of Australia. This is probably the largest and most complete collection of Australian aboriginal material in this country.

Several important habitat groups were added to the exhibits of the Department of Zoology. An excellent group of African lions was installed in Carl E. Akeley Memorial Hall (Hall 22). The specimens, a large male, a female, and four small kittens, were obtained by Mr. and Mrs. Marshall Field during a hunting trip they made in Tanganyika in 1930. Staff Taxidermist C. J. Albrecht mounted the animals.

In William V. Kelley Hall (Hall 17) there was installed a group of the great gaur ox or seladang of Asia. These fine animals, rare in museums, make a strikingly beautiful group. Dominating the group is a large bull which fell to the rifle of Colonel Theodore Roosevelt while he was leader of the William V. Kelley-Roosevelts Expedition to Eastern Asia for Field Museum in 1928-29. Other specimens included are a cow presented by the late Charles Rydell of Superior,



THE LATE DR. OLIVER CUMMINGS FARRINGTON

Curator of the Department of Geology from 1894 until his death on November 2, 1933

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

Wisconsin, and a young calf presented for the group by Messrs. George F. Ryan and George G. Carey, Jr., of Baltimore, who obtained it on one of their expeditions. The group was prepared by Staff Taxidermists Julius Friesser and Arthur G. Rueckert. The background was painted by Artist Corwin.

An exhibit of Florida manatees or sea-cows was placed on view in the Hall of Marine Mammals (Hall N). To prepare this group, specimens of the manatee in fresh natural condition were obtained through the cooperation of the John G. Shedd Aquarium. From these, reproductions were made in cellulose-acetate by Staff Taxidermist Leon L. Walters, assisted by Mr. Edgar G. Laybourne. The method used is that invented by Mr. Walters, and used so successfully in the past for reptiles and for hairless or nearly hairless mammals. By this method the skin is reproduced in such a way as to preserve the finest details of texture and exact shades of color. There are two animals in the group, shown in characteristic attitudes in an underwater scene. The background was painted by Taxidermist Leon L. Pray.

The orang specimens which formerly occupied a square floor case in Carl E. Akeley Memorial Hall (Hall 22) were reinstalled in a built-in case with a semi-elliptical painted background in William V. Kelley Hall (Hall 17). An elaborate tree-top scene in a tropical forest was prepared, and the group, placed in this setting, is very much improved in beauty and realism as compared with its old arrangement. The reinstallation and the painting of the background are the work of Taxidermist Pray.

Another orang exhibit, a single specimen representing the first serious attempt to apply the so-called "celluloid" process to hairy mammals, was added to the systematic collection of mammals in Hall 15. This specimen is partly real, and partly synthetic, and was prepared by Taxidermist Walters. The receipt of a fresh specimen, shortly after its death in a zoo, provided the opportunity for this interesting experiment which has proved highly successful. By means of the special technique employed, the natural skin is replaced in the exhibit by a celluloid-like composition, but the original hair of the animal is imbedded in this composition exactly as it was formerly in the skin. This method has certain advantages over the conventional taxidermy technique in which the dried and tanned skins of animals are used, but it is not designed to displace the earlier methods except for subjects to which it is peculiarly adapted.

A strikingly interesting group placed in Stanley Field Hall is that of the bower bird of New Guinea, for which specimens were obtained by the Cornelius Crane Pacific Expedition of Field Museum in 1929. The group includes the complicated bower, decorated with colorful fruits and berries, built by the bird. The male is seen performing his courtship dance while the female looks on through the bower. The birds were mounted by Assistant Taxidermist John W. Moyer.

In Hall 21 there was installed a screen of birds-of-paradise, including specimens obtained by the Crane Expedition, the Kelley-Roosevelts Asiatic Expedition, the Suydam Cutting Sikkim Expedition, and the Field Museum-*Chicago Daily News* Abyssinian Expedition. These were mounted by Mr. Moyer. Five screens of North American birds, prepared by Taxidermist Ashley Hine, were also added to Hall 21.

An unusually large and fine specimen of bison bull, presented to the Museum by Colonel Wallis Huidekoper, owner of the American Ranch at Twodot, Montana, was placed on exhibition in the collection of horned and hooped mammals in George M. Pullman Hall (Hall 13). The specimen came from a large herd on Colonel Huidekoper's ranch. It weighed about 2,300 pounds when alive. Taxidermist Julius Friesser mounted it.

An exhibit of armadillos, anteaters, sloths, and their relatives was installed in Hall 15. The specimens include various species collected by the Marshall Field Brazilian Expedition in 1926, an aardvark taken on the Harold White-John Coats African Expedition in 1929, and a specimen of Temminck's pangolin presented to the Museum by the late Robert T. Everard, of Detroit. Also added to Hall 15 was a case containing all the more important species of dogs (exclusive of domestic varieties) and wolves of the world. These were prepared by Taxidermist Albrecht.

A number of reproductions of interesting fishes were installed in Albert W. Harris Hall (Hall 18). Among these are angler-fish, sargassum fish, Labrador sea trout, wolf herring and bonefish. The original specimens of some of these were obtained through the cooperation of the John G. Shedd Aquarium, others were collected by expeditions, and the bonefish was presented to the Museum by Colonel Lewis S. Thompson of Red Bank, New Jersey. They were prepared by Taxidermists Pray and Rueckert.

To the osteological exhibits in Hall 19 there were added screens of skeletons of monotremes, marsupials, and edentates, prepared by

Assistant Curator Edmond N. Gueret and his assistant, Mr. D. Dwight Davis.

An unusual exhibit, showing the fossil skeleton of a ground sloth in the earth as it was discovered by the Marshall Field Paleontological Expedition to Argentina and Bolivia in 1927, was installed in Ernest R. Graham Hall (Hall 38). This exhibit, with its explanatory label, serves to answer questions, often asked by visitors, as to how paleontologists find fossil skeletons. The group was prepared by Mr. Phil C. Orr of the staff of the Department of Geology.

A collection of rare elemental gases of the argon family presented by the Air Reduction Sales Company, of Chicago, was installed in the corridor connecting Hall 36 and Frederick J. V. Skiff Hall (Hall 37). The gases are seen, glowing with the bright colors they radiate when used in neon and similar signs, by exciting them to luminosity with an electric current which passes through the tubes containing them when a button on the exhibition case is pressed. Five tubes contain the gases argon, neon, helium, krypton, and xenon, and three other tubes contain mixtures of these.

To the meteorite collection in Hall 34 there were added eighteen specimens from the group of meteorite craters at Henbury, Australia, which show meteorites and also the lava and silica-glass into which some of the rock of the crater walls has been changed by the heat resulting from the impact of gigantic meteorites. Specimens representing these features are comparatively rare, as there are only five craters of recognized meteoritic origin in the world. Also in Hall 34 there was placed an exhibit illustrating, by five specimens showing various stages, the method of cutting a "varnistar" from rock crystal. The material for this exhibit was presented to the Museum by Mr. Stephen Varni, of New York. Another exhibit added to Hall 34 consists of two large crystals of selenite in the form of prismatic columns, so striking in appearance that they have been given a case by themselves in the mineral collection.

The exhibit of liquid petroleum products formerly in Hall 36 has been replaced, through the courtesy of the Standard Oil Company (Indiana), by a synoptic collection intended to indicate the wide ramifications of petroleum products and the many ways in which they affect our daily lives.

In the Department of Botany a plantation rubber tree showing the manner in which the bark is cut in shallow V-shaped incisions, and a wild rubber tree showing the effects of tapping in the crude manner formerly in use on the lower Amazon, were placed on exhibi-

tion among the raw plant materials in Hall 28. Shown with these are tools used for making the incisions, and specimens of Parà rubber in the form in which it comes to market. The exhibit was made possible by gifts of material from Van Cleef Brothers and the Wilkinson Process Rubber Company of Chicago, and by collections obtained by the Marshall Field Botanical Expedition to the Amazon in 1929. To illustrate the botanical characters of the *Hevea* rubber tree a fruiting branch of this tree, obtained by the Amazon expedition, was reproduced in the Plant Reproduction Laboratories of the Museum.

To the Hall of Plant Life (Hall 29) have been added several exhibits prepared by the Plant Reproduction Laboratories. Among these may be mentioned the Panama hat palm; a large aquatic aroid, *Montrichardia*, of tropical America, best known as the aninga; a branch of the cupuassu tree, related to the cacao; a branch of biribà which bears one of the largest and most delicious of tropical fruits; and a branch of the sweet gum known as liquidambar. The laboratories also produced a reproduction of a tobacco plant which has been placed on exhibition in Hall 28. A number of other additions were made to the economic collections in Halls 25 and 28.

Besides the installation of many new exhibits, the work of reinstallation of the collections in many halls continued in all departments. In many instances reinstallation included the addition of new material. Detailed accounts of this work will be found under the various Department headings in this Report. Halls in which especially extensive reinstallations were made include Edward E. and Emma B. Ayer Hall (Hall 2) devoted to Greek, Roman, and Etruscan archaeology; Hall 7, archaeology of the southwestern United States; George T. and Frances Gaylord Smith Hall (Hall 24), Chinese archaeology; H. N. Higinbotham Hall (Hall 31), gems and jewels; Joseph N. Field Hall (Hall A), Melanesian ethnology; and the Hall of Plant Life (Hall 29).

Although expeditions and field work were eliminated from the budget, the Museum benefited from a number of expeditions financed privately in the interests of the institution. Captain G. Allan Hancock, of Los Angeles, organized and led, aboard his scientific cruising ship, *Veleo III*, an expedition to Guadalupe island off Mexico's west coast, which obtained specimens for a proposed habitat group of elephant seals. Dr. Harry M. Wegeforth, President of the Zoological Society of San Diego, California, was also instrumental in the organization of this expedition. Part of the



A SECTION OF CHAUNCEY KEEP MEMORIAL HALL.
Races of mankind sculptured in bronze by Matvina Hoffman

THE LIBRARY
OF THE
UNIVERSITY OF ALABAMA

expenses were paid with money from the Mrs. Emily Crane Chadbourne Fund. Two members of the Museum's taxidermy staff, Messrs. Julius Friesser and Frank C. Wonder, accompanied the party. Five fine elephant seals, ranging in weight from 250 to 5,000 pounds, were collected. The Museum is indebted to the Mexican government for its cooperation in granting permission for the hunting of these animals which are under strict protection.

The Field Museum Archaeological Expedition to the Southwest, financed from funds provided by the late Julius and Augusta N. Rosenwald, conducted its third season of excavations on the site of the Lowry ruin in southwestern Colorado. Dr. Paul S. Martin, Assistant Curator of North American Archaeology, was leader, as in the expedition's two previous seasons in the summers of 1930 and 1931. Additional rooms of the pueblo were laid bare and large collections of artifacts were obtained during the 1933 season.

A zoological expedition sponsored by Mr. Leon Mandel, of Chicago, to make extensive collections of birds, mammals, reptiles, and amphibians, sailed for Guatemala in November. This expedition, known as the Leon Mandel Guatemala Expedition of Field Museum, will continue its work for several months of 1934. Personnel includes Mr. Karl P. Schmidt, Assistant Curator of Reptiles, as leader; Mr. Emmet R. Blake, ornithologist; Mr. F. J. W. Schmidt, mammalogist; and Mr. Daniel Clark, general assistant. Mr. Mandel himself joined the party late in the year to participate in part of its work.

Toward the end of the year an expedition, which is to begin operations in 1934, was organized. Mrs. Oscar Straus, of New York, is its sponsor, and it will be known as the Straus West African Expedition of Field Museum. The expedition will collect birds and mammals in Senegal, Nigeria, and Angola. Mr. Rudyerd Boulton, Assistant Curator of Birds, will be leader. Other members of the party will be Mr. Frank C. Wonder of the museum's taxidermy staff, Mr. John F. Jennings, of Chicago, as photographer, Mrs. Boulton, and, for part of the trip, Mrs. Straus herself.

A number of rare fossil mammals and reptiles were obtained for the Museum by Mr. Bryan Patterson, Assistant in Paleontology, while on a field trip in western Colorado during the summer. He was accompanied by Messrs. James H. and Clayton A. Quinn. Of special importance in the collection are skulls and parts of skeletons of an animal that has been one of the rarest of fossil mammals—

Titanoides faberi, representative of the Amblypoda, an extinct order of primitive hoofed mammals.

Mr. Sharat K. Roy, Assistant Curator of Invertebrate Paleontology, made a valuable collection of Cambrian and Cretaceous fossils in Pennsylvania, New York, and New Jersey. He was assisted on the expedition by Mr. Floyd Markham, of Chicago.

Great progress was made in the work of photographing type specimens of Central and South American plants in European herbaria—a joint project of the Rockefeller Foundation and Field Museum, in charge of Assistant Curator J. Francis Macbride. A full report on this subject will be found under the heading Department of Botany, Expeditions and Research (p. 44).

Arrangements were made with Rear-Admiral Richard E. Byrd, U.S.N., to collect for the Museum, during the course of his current expedition to the antarctic regions, eight or ten specimens of emperor penguin for a proposed habitat group. The expenses in connection with this project were provided for from the zoological fund contributed by Mrs. Emily Crane Chadbourne.

Various benefactions, both in money and materials, were received during the year, for which grateful acknowledgment is herewith made. Funds received by gift are detailed below:

President Stanley Field contributed \$13,272.23 towards liquidation of the building fund deficit.

Mr. Marshall Field gave \$9,000, his final contribution toward payment of expenses in connection with Chauncey Keep Memorial (Hall 3).

Mrs. James Nelson Raymond, of Chicago, contributed \$3,000 which was applied toward the operating expenses of the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures, of which she is the founder, and which she has generously supported ever since its establishment in 1925.

Mr. Leon Mandel, of Chicago, is the donor of \$4,351.30 to meet the expenses of the Leon Mandel Guatemala Expedition of Field Museum.

Mrs. Charles H. Schweppe, of Chicago, made a gift of \$3,000 to enable the Museum to purchase certain of the sculptures now in Chauncey Keep Memorial Hall.

Mrs. E. Marshall Field, of New York, contributed \$5,000 toward the general operating expenses of the Museum.

A gift of \$250 was received from Mr. Henry J. Patten, of Chicago.

Mr. John P. Kellogg, of Chicago, made a gift of \$150 toward the expenses of a zoological expedition to Guatemala. Mr. B. E. Axe and Mrs. Frances C. Axe, of Seattle, Washington, gave \$70 for the purchase of a gold nugget.

Miscellaneous cash contributions totaling \$9,227.19 were received in addition to the above-mentioned individual gifts.

A bequest was left to the Museum by the late Mrs. Edward D. Moeng, of Chicago.

From the Rosenwald Family Association the Museum received \$7,909.49 in payment of all accrued interest to October 1, 1933, on the bequest of the late Mrs. Augusta N. Rosenwald.

The South Park Commissioners turned over to the Museum \$125,802.68, representing the institution's share, as authorized by the state legislature, of collections made during 1933 under the tax levies for 1931 and previous years.

Of the gifts of material for the collections of the various departments which were presented by friends of the Museum during the year, some have already been mentioned on preceding pages in connection with their installation as exhibits or their acquisition by expeditions.

A notable gift is a collection of fifty-five precious stones representing the principal varieties mined in Ceylon, which was presented by Prince M. U. M. Salie, of Galle, Ceylon. These stones have been distributed among the collection of gems and jewels in H. N. Higinbotham Hall (Hall 31). Mrs. Richard T. Crane, Jr., presented, in memory of the late Richard T. Crane, Jr., Benefactor and for many years a Trustee of the Museum, an ancient Peruvian gold beaker of exceptional excellence. Mr. Homer E. Sargent, of Pasadena, California, gave the Museum a fine old Mexican serape and thirteen rare textiles from Algeria.

Through the generosity of Mr. C. Suydam Cutting, of New York, the Museum received an extremely interesting collection of birds and mammals from Upper Burma, where they were collected by Lord Cranbrook and Captain F. Kingdon Ward. A fine male specimen of the rare spectacled bear of northern South America was presented by Messrs. W. A. Olen and F. D. Hurley, of Clintonville, Wisconsin. For the mineral collections a purple fluorite crystal of unusually large size was presented by the Crystal Fluorspar Company, of Elizabethtown, Illinois. A specimen of the rare kind of

porphyry called rhombenporphyry, which is found in Oslo, Norway, and seldom, if ever, elsewhere, was presented by Mr. Johan Eriksen, of Oslo. Mr. Frederick Blaschke, of Cold Spring-on-Hudson, New York, gave the Museum an interesting example of placer gold, found in the crop of a duck. Eighteen reels of motion pictures of Tibetan dancers were presented by Dr. Wilhelm Filchner, of Berlin, Germany. Mrs. William H. Moore, of New York, gave the Museum fifteen metal mirrors and other archaeological material from China.

The American Museum of Natural History, New York, made a gift of seven reels of the Martin Johnson feature motion picture film, *Simba*. Mr. Arthur S. Vernay, of New York and London, gave two complete reels of the film, *India*, and some other motion picture films. Two mounted specimens of capercaillie were received from Mr. James Simpson. Mr. and Mrs. John P. Kellogg, of Chicago, presented 117 African birdskins. From Mr. Philip M. Chancellor, of Santa Barbara, California, was received a gift of forty-nine ethnological specimens representing the Yaqui Indians of Mexico. An extremely rare set of ten books came to the Museum as a gift from Mrs. Robert E. Ross, Mrs. Joseph H. King, and Mrs. William E. Pratt, of Chicago. It is the catalogue of the famous collection of Oriental porcelains of William T. Walters in Baltimore, Maryland.

As in past years, many other gifts were received from a multitude of sources, of which details will be found in the departmental sections of this Report under the heading Accessions, and also in the tabulated List of Accessions which begins on page 94. A number of gifts were received during the summer from visitors to A Century of Progress exposition who also visited the Museum and took the opportunity to bring specimens of various kinds of objects to the Museum for identification.

The name, Mary D. Sturges Hall, which formerly applied to Hall 3, has been transferred to Hall 5, because of the occupation of Hall 3 by the new exhibits pertaining to the races of mankind, and the renaming of Hall 3 as Chauncey Keep Memorial Hall in recognition of the late Mr. Keep's contribution toward these exhibits.

His Highness the Maharaja Gaekwar Sir Savaji Rao III, ruling monarch of Baroda, was a visitor at Field Museum on August 29. Among other distinguished visitors entertained at the Museum during the year were Mrs. Theodore Roosevelt, Sr., widow of the late President Theodore Roosevelt; Sir Arthur Smith Woodward, former curator of paleontology at the British Museum; Dr. Victor Van Straelen, Director of the Musée Royale d'Histoire Naturelle

de Belgique, Brussels; Dr. A. W. Grabau, professor of paleontology at the National University of China and chief paleontologist of the Chinese Geological Survey, Peiping; Professor Richard Willstätter, of Munich, winner of the 1918 Nobel prize in chemistry; Sir John Flett, K.B.E., of the Geological Survey of Great Britain; and Mr. W. Campbell Smith of the mineral division of the British Museum.

During the convention of the American Association for the Advancement of Science, held in Chicago in June, meetings of various sections were held in the James Simpson Theatre and the small lecture hall of Field Museum. On the evening of June 23 a special "open house" was held for members of the association, and a large number of the delegates attended. The use of the Museum lecture hall was extended also to the American Association of Museums for one of its meetings.

Because of Field Museum's important meteorite collection, largest in the world in number of falls represented, meetings at which the Society for Research on Meteorites was organized were held in the lecture hall on August 21 and 22. The late Dr. Oliver C. Farrington, then Curator of Geology, was elected honorary president of this society, and Associate Curator Henry W. Nichols (now Acting Curator of Geology) was elected a member of the council of the organization.

Because of the heavy traffic caused by A Century of Progress exposition, special regulations were put into effect by the South Park Commissioners during the period of the fair whereby parking of automobiles was not permitted in the vicinity of Field Museum or other institutions in Grant Park.

Through the courtesy of WGN, the *Chicago Tribune* radio station, a series of broadcasts on Field Museum and its activities was begun in December, and will be continued into 1934. The speakers include the Director and departmental heads of the Museum.

A number of objects for which the Museum no longer had use because of the possession of other similar material sufficient for its collections, or because of lack of suitable exhibition space, were sold. Among these were the large Chinese gateway obtained at the close of the Panama Pacific International Exposition of San Francisco in 1915; twelve totem poles, potlatch figures, and houseposts of the Northwest Coast Indians; material for twelve Hopi altars; a mastodon skeleton; and miscellaneous duplicate material of various kinds. Some 250 reproductions of Greek and Roman bronze objects have been removed from the collections in Edward E.

and Emma B. Ayer Hall, and are now available to any institutions or private collectors who might be interested in purchasing them.

Prior to their disposal by sale, the Chinese gateway and the totem poles were loaned to A Century of Progress exposition and exhibited at appropriate locations on the fair grounds.

Thirty-one of the more important habitat groups of animals in the Museum were made the subject of illustrations of a most unusual kind in a book, *The Animal Kingdom*, published by the Orthovis Company of Chicago. The pictures are printed by a special process which makes them appear, when viewed through the "orthoscope" (an optical device accompanying each copy of the book), to be in three dimensions, like the groups they depict.

Following the death of Dr. Oliver C. Farrington, Curator of the Department of Geology, Associate Curator Henry W. Nichols was appointed Acting Curator of the Department. Mr. Nichols had been associated with the Museum and with Dr. Farrington since 1894, and his experience on expeditions, in research, and in museum methods, assure that the work of the Department will be continued uninterruptedly along the same lines upon which it has been successfully conducted in the past.

With a reassignment of duties, the title of Mr. Sharat K. Roy, until recently Assistant Curator of Invertebrate Paleontology, was changed to Assistant Curator of Geology.

At the end of the year Mr. Llewelyn Williams, Assistant in Wood Technology in the Department of Botany, was made Assistant Curator of Economic Botany, to be effective from January 1, 1934.

Professor A. C. Noé, paleobotanist of the University of Chicago, was appointed Research Associate in Paleobotany on the staff of the Museum.

Mr. Karl P. Schmidt, Assistant Curator of Reptiles, who had been granted six months' leave of absence for research at European museums under a fellowship grant from the John Simon Guggenheim Memorial Foundation of New York, completed this work, and returned to his duties at the Museum.

Miss Bertha M. Schweitzer was employed as a clerk and plant mounter in the Department of Botany.

Under the provisions of the Field Museum Employees' Pension Fund, insurance amounting to \$6,000 was paid to Mrs. Oliver C. Farrington, widow of the late Dr. Farrington, Curator of Geology, whose death has been noted elsewhere in this Report.

Through the assignment, late in the year, of a number of workers to the Museum by the Illinois Emergency Relief Commission, a considerable amount of routine clerical and similar work, which otherwise would have had to be postponed indefinitely, was accomplished without additional payroll expense to the Museum. Some of these workers are employed under the provisions of the Civil Works Service of the federal government, which pays them, and others are employed under the Illinois "work relief" plan and paid by the state. This arrangement, which is of benefit both to persons who would otherwise be unemployed, and to the Museum, will be continued in 1934.

The scope of the Art Research Classes conducted at the Museum in cooperation with the Art Institute of Chicago was greatly expanded, and the number of students exceeded that of any previous year. In addition to the original class in drawing, painting, and illustration, which was continued with some thirty-five students enrolled, classes were organized for three new groups.

One of the new classes is a separate training group for art teachers in which there were another thirty-five students. Study at Field Museum has now been designated as a required course for all students in teachers' training classes of the School of the Art Institute. Another of the new classes established in 1933 is one for a summer course, designed to meet the needs of teachers and others who wish to pursue further art research studies and are unable, because of their employment, to attend the autumn, winter, and spring classes. About eighteen students participated in this course. The third new class is one conducted on Saturdays through the greater part of the year, which offers supplementary work for the benefit of professional artists, teachers, and others who are engaged on other days but can devote a half or a full day to study on Saturdays. In this group there were about fifteen persons enrolled.

Much work of high quality was produced by students in all the classes. The same instructor who has conducted these classes for a number of years, Mr. John Gilbert Wilkins, of the faculty of the Art Institute school, was again in charge. The students use exhibits in the Museum as subjects for the paintings, designs, sculptures, and other work they produce. A classroom with working facilities is provided by the Museum for their use.

The students in the above-mentioned classes are all engaged in comparatively advanced work. In addition to these, the classes of children inaugurated in 1932 by the Saturday School of the Art

Institute were continued in 1933. More than one hundred children were enrolled in these. They ranged from pupils in the fourth grade of elementary schools to high school students.

From June 1 to September 30, a period corresponding to the most important months of A Century of Progress exposition, the Museum was kept open daily from 9 A.M. to 7 P.M., or an hour later than is usual in the summer schedule.

Measures to save expense on electric lighting were continued, and in the autumn the Museum signed an "off peak" form of contract with the Commonwealth Edison Company from which economy benefits might be derived. This called for a reduction of the amount of current used between the hours of 4:30 P.M. and 7:30 P.M. during the months of November, December, January, and February. To facilitate this, and for other reasons, changes were made in the schedule of visiting hours to be observed at the Museum in the future. Henceforth the hours during the various seasons will be as follows: November 1 to March 31, 9 A.M. to 4:30 P.M.; April 1 to 30 and September 1 to October 31, 9 A.M. to 5 P.M.; May 1 to August 31, 9 A.M. to 6 P.M. During the period when the 4:30 closing hour is in effect, the Museum will be kept open until 5 o'clock on Sundays and holidays; in September, up to and including Labor Day, the closing hour will be 6 P.M.

The use of electricity was further cut down during the daytime hours by changing the lighting in the shop of the Division of Printing; by installing pendant switches in the general Library and the libraries of the Departments of Botany and Geology; and by using only the two center chandeliers in Stanley Field Hall on dark days when the hall required lighting.

The superintendent of maintenance, the chief engineer, and the working forces under their supervision, gave the usual careful attention to proper maintenance of the building, and many improvements were effected. Some of the more important are detailed below.

Foreseeing unusual crowds during the summer months, revisions were made in the arrangement of the ticket and checking counters at the north and south entrances to facilitate service to the public. New checking facilities were provided for 600 umbrellas, 300 coats, and many packages.

The opening this year of the two large new halls in the Department of Anthropology—Chauncey Keep Memorial Hall (Hall 3) and the Hall of the Stone Age of the Old World (Hall C)—imposed especially heavy work upon the maintenance division. To prepare Hall 3



RACIAL TYPES OF INDIA

An alcove in Chauncey Keep Memorial Hall showing method of installation

THE BOARD
OF THE
UNIVERSITY OF ILLINOIS

to become Keep Hall it was first necessary to remove from it all the cases devoted to North American archaeology which formerly occupied it. These were transferred from the first floor to their new location in Hall B on the ground floor. Prior to this operation Hall B was prepared to receive these exhibits. Twelve insulating panels with ventilators in the windows were installed; the doors and tile wall at the east end of the hall were removed; the ceiling lights were rearranged in two straight lines; and the walls and ceiling were patched and painted.

Chauncey Keep Memorial Hall (Hall 3) was entirely remodeled. The central part of the hall was reconstructed to form an octagon around the "Unity of Mankind" bronze group, and the sections of the hall on either side of this octagon were reconstructed into a series of alcoves (see Plate III). Seventy-seven pedestals were built for the exhibition of the bronze and stone figures created by Miss Malvina Hoffman; also three shadow box niches in the walls. At the east end of the hall eight individually lighted wall cases were built and prepared for the installation of physical anthropology exhibits. Four temporary display boxes were provided for illuminated colored transparent pictures. The walls and ceiling of Keep Hall were decorated; a rubber tile floor and baseboard were installed; four new double benches were provided; and the hall was equipped with indirect illumination. A partition was built between Keep Hall and James Nelson and Anna Louise Raymond Hall (Hall 4).

In the Hall of the Stone Age of the Old World (Hall C) the fronts of eight group cases were built out to provide space for tipping the view glasses forward so as to eliminate reflections. Six new wall cases were built in this hall, and the ground framework was constructed for four groups. All sixteen cases on the south side of this hall were glazed and finished, and the walls and ceiling were patched and painted.

The maintenance force gave assistance to the scientific Departments in various other new installations, reinstallations, or rearrangements of exhibits. Among such operations were the following: remodeling of the case containing the group showing Indians making stone implements, in Hall B; remodeling of the case containing the model of a Walpi pueblo in Hall 7 (Stanley McCormick Collection, archaeology and ethnology of southwestern United States); building the ground framework for the gaur ox and orang groups in William V. Kelley Hall (Hall 17), and glazing and finishing the cases

containing them; remodeling a built-in case at the west end of the same hall for a proposed proboscis monkey group; reconstruction of a 12' x 12' case for the new lion group in Carl E. Akeley Memorial Hall (Hall 22); rebuilding a 15' x 15' case in the same hall to accommodate a proposed group of bongo; construction of a wall case for the exhibit of rhinoceros horn cups in George T. and Frances Gaylord Smith Hall (Hall 24); and construction, glazing, and finishing of the case containing the new exhibit of a fossil sloth in matrix, in Ernest R. Graham Hall (Hall 38).

All lighting fixtures, and the tops of built-in exhibition cases containing concealed lighting arrangements, were cleaned in the early part of the year. In Hall B, to which the North American archaeological exhibits have been transferred, twenty-five lighting fixtures were hung, and one large case was equipped for illumination. In the Hall of the Stone Age of the Old World (Hall C) electrical work was completed on the cases containing the groups, and fifteen floor cases were wired for lighting. In Chauncey Keep Memorial Hall (Hall 3) twenty-six new circuits were run in, 226 lamps installed, and eight wall cases wired. In George T. and Frances Gaylord Smith Hall (Hall 24) eleven wall cases were wired.

In the general Library 1,350 square feet of steel shelving were installed. In the Herbarium seven additional all-steel eight-door storage cases were assembled. In the Department of Zoology laboratories twenty-seven all-steel bird and mammal storage cases, with 240 large trays and 600 small ones, were provided.

On the exterior of the building, sixty-three window sills and eight window transoms were replaced, and twenty-three sills were repaired.

Five large signs containing information about the Museum for visitors to A Century of Progress were set up at advantageous locations on the lawns around the Museum.

In the public lavatories valves were overhauled generally. The Crane Company, of Chicago, changed all old valves in the men's lavatory, which had been giving trouble, to a new type which has proved very satisfactory. This was done without cost to the Museum.

Because of the building of street car tracks over the Illinois Central Railroad the Museum water main had to be changed and about 500 feet of new pipe laid. This involved no expense to the Museum.

During the summer the boilers and the heating system in general were carefully gone over, and the brick work and stokers were repaired.

Under its contract with the John G. Shedd Aquarium, the Museum continued to furnish steam from its plant to the aquarium during the months when heat was required.

DEPARTMENT OF ANTHROPOLOGY

EXPEDITIONS AND RESEARCH

During the summer of 1933, Field Museum resumed its archaeological investigations on the Lowry ruin in southwestern Colorado by sending out a third expedition under the leadership of Assistant Curator Paul S. Martin. Dr. Martin had previously spent two seasons there in 1930 and 1931. He left Chicago by motor car on June 16, and returned to the city October 2. The length of time spent in the field amounted to thirteen weeks. This expedition, known as the Field Museum Archaeological Expedition to the Southwest, was financed from the income of a fund established by the late Julius and Augusta N. Rosenwald.

The ruin explored by Dr. Martin, under permit from Secretary of the Interior Harold L. Ickes, is located about thirty-two miles northwest of Cortez in Montezuma County, and contains a prehistoric Indian pueblo. From four to seven men were employed according to need during the season. Ten large dwelling rooms of the pueblo and one kiva (underground chamber in which ceremonies were held) were completely laid bare. In the course of these excavations 1,015 cubic yards of earth and rock were moved. The total number of ground floor rooms now open is twenty-eight. Two more kivas were found, bringing the total number for the three seasons' work up to nine. Also, considerable trenching was undertaken.

Several important discoveries were made. It has now been made certain that the area at present occupied by the two superposed kivas was at one time composed of secular or dwelling rooms. Only the dismembered fragments of the walls which had at one time constituted the partitions of these rooms were found, but they were sufficient to give the sequence of development and change. It was found also that the builders of Lowry Pueblo often tore away portions of old walls and tied new ones into them. Thus, the striking differences in masonry in two walls apparently built at the same time may be properly explained.

It was likewise discovered that a former dwelling room was partly demolished and then enlarged so as to enclose a later kiva. The nature of this enlargement and the remnants of the demolished wall

were cleverly concealed by the free use of adobe mortar and spalls. It was not until this season that certain architectural anomalies of this kiva enclosure were understood.

A very accurate set of ground plans and cross sections was prepared, traced, and blue-printed. The excavating was conducted in such a way that a careful record of all potsherds was obtained, the specimens yielded by each foot of ground being separately sacked and catalogued. From these potsherds it will be possible to work out the stratigraphy, if any should exist, and to correlate the ceramic types with the masonry and the dated portions of the pueblo. Thirty-five portions of roof beams and lintels were recovered, treated with paraffin, and shipped to the Laboratory of Anthropology at Santa Fé, New Mexico, for study and dating. One hundred and eight photographs were made by the expedition. These were taken especially to show unusual and significant phases of the work, details of masonry, abutments, ties, position of roof beams, and perishable materials. A scale model, showing two phases in the development of the pueblo, was constructed of wood and brought to the Museum.

The results of this season's efforts are more satisfactory than those of the preceding ones. Further excavations have confirmed some of the conclusions reached after the season of 1931. Lowry Pueblo was first of all Chacoan in culture and was successively changed, modified, and added to by its builders, their descendants, and finally by newcomers. Room construction, types of masonry, and ceramic changes all bear out this conclusion. However, certain hypotheses which previously seemed reasonable had to be discarded in the light of new evidence obtained this season. Moreover, there remain many puzzling features still to be explained, and this can be accomplished only by further digging.

Assistant Curator Wilfrid D. Hambly completed a manuscript on the ethnology of Australia to be published in the leaflet series. Assistant Curator J. Eric Thompson wrote a handbook on the archaeology of South America with reference to the exhibits in Hall 9, which it is hoped will be brought out next year. Two interesting leaflets, one entitled *The Races of Mankind, an Introduction to Chauncey Keep Memorial Hall*, the other, *Prehistoric Man, Hall of the Stone Age of the Old World*, were written by Assistant Curator Henry Field, and published as Anthropology Leaflets Nos. 30 and 31. The *Archaeology of North America*, a guide to the exhibits in Hall B, written by Assistant Curator Martin, was issued as Anthropology Guide, Part 2. This is a most useful and instructive handbook



SUN-WORSHIP AT CARNAC ALIGNMENT, NEOLITHIC PERIOD, BRITTANY, FRANCE
Group VII in Hall C

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

presenting for students and the general public an excellent survey of the early history of the Indians in North America, with a lucid exposition of the archaeological material.

Curator Berthold Laufer devoted most of his time during the year to the reinstallation of the Chinese and classical collections. He also made some researches into the history of buckwheat, maize, rye, wheat, and other cereals.

Sixteen signed articles were contributed by the staff of the Department to *Field Museum News* during the year; also twenty-five unsigned articles and brief items. Data for twenty-four newspaper publicity stories were likewise supplied by the staff.

ACCESSIONS—ANTHROPOLOGY

The number of accessions recorded during the year is forty-seven. Of these thirty-nine are gifts, two result from expeditions, and six were obtained by exchange. The total number of objects received in these accessions is 2,327.

An important gift consisting of seven Navaho blankets was received from the estate of the late Edward E. Ayer, Benefactor and former Trustee of the Museum. These blankets were obtained by Mr. Ayer some thirty years ago, and are distinguished because of their mellow colors and exceptional weaves.

An exchange made with Mr. Warren K. Moorehead, of Andover, Massachusetts, resulted in the acquisition of twelve stone artifacts which belong to the Red Paint Culture of Maine. Likewise by exchange with Mr. Frank F. McArthur, of Oakland, Iowa, there were acquired ten fine examples of early Pueblo pottery recovered from burial mounds in southwestern Colorado and southeastern Utah.

More than fifteen hundred objects were obtained through the Field Museum Archaeological Expedition to the Southwest. This collection consists of a large variety of bone and stone tools, pottery, potsherds, beads, articles of wood, pendants, animal bones, and two pairs of elk antlers, the points of which have been beveled. They may have formed part of a ceremonial headdress.

The collection of Mexican serape blankets has been enriched by two remarkable gifts. The first of these is a very finely woven serape presented by Mr. Homer E. Sargent, of Pasadena, California (formerly of Chicago), an old friend and generous patron of this institution, as an addition to the Sargent-Ryerson collection of Mexican serapes on exhibition in Hall 8. Another serape, received from the estate of the late Edward E. Ayer, is made of two strips

woven together lengthwise. Judging by the ornamentation, both serapes were probably made in the neighborhood of Saltillo, in northern Mexico.

Thirteen beautiful textiles of fine quality, from the Kabyles of Algeria, are another gift from Mr. Sargent, who had collected them personally many years ago during a journey in northern Africa. The collection comprises well-woven and decorated rugs such as are used in the mosques and in better-class families, draperies for decorating the walls of mosques, and examples of the capes worn by Kabyle women. All these textiles were made by hand on primitive looms worked by women in their own homes. They could not be obtained at present, and are a most valuable addition to the Museum's African collections.

By exchange with the Department of Middle American Research, Tulane University, New Orleans, Louisiana, the Museum acquired a collection of fifty-two pottery figurines and vessels belonging to the Huastec culture of eastern Mexico, which was hitherto poorly represented in the Museum collections.

Mrs. Wills B. Lane, of Savannah, Georgia, presented a four-piece costume worn during festivals by Indian men of rank in Santo Tomas, Chichicastenango, Guatemala. This costume was placed on exhibition immediately. Examples of men's ceremonial clothes are difficult to obtain in that part of Guatemala, and the Museum previously had possessed no complete costume representing the types used there.

In memory of the late Richard T. Crane, Jr., Benefactor and for many years a Trustee of Field Museum, Mrs. Crane, his widow, presented a gold beaker from the highlands of Peru. This valuable vessel, about six hundred years old, is described in *Field Museum News*, Volume 4, No. 9, September, 1933, and has been placed on exhibition in H. N. Higinbotham Hall (Hall 31).

Miss Lucy D. Plummer, of Chicago, gave the Museum thirteen pottery vessels which she had collected. They are beautiful examples of the decorative skill of the Conibo Indians, who live on the banks of the Ucayali River, a tributary of the Amazon, in eastern Peru.

From another tributary of the Amazon, the Jary River, comes an ethnological collection of twenty-four pieces presented by Professor Franz F. Exner, of Northfield, Minnesota. The collection consists of bows, arrows, a paddle, and eight pottery vessels manufactured by the Aparai Indians. The decorations on the arrows are of very high quality.

Eight motion picture reels representing religious dances and pantomimes of Tibetan Lamas were presented by Dr. Wilhelm Filchner of Berlin, well-known explorer of Tibet, who made these films on his last expedition. They are not only of educational and artistic value, but are also helpful in the study of these curious dances, in connection with which the Museum has a comprehensive collection of masks and costumed figures on exhibition in the West Gallery (Hall 32).

An important addition to the Chinese collection is a gift from Mrs. William K. Moore, of New York (formerly of Chicago), of sixteen metal mirrors, several bronze ornaments for chariots and harness, and a cast-iron frog. The mirrors come from the Huai River Valley in Anhui Province, China, and date in the third century B.C. They are elaborately decorated with geometric designs in relief and represent the earliest Chinese mirrors now extant.

A legacy of \$50,000 left to the Museum by the late Chauncey Keep, a member of the Board of Trustees from 1915 until his death in 1929, was applied to the expense of the construction work in Hall 3 (named in his honor Chauncey Keep Memorial Hall), and to the cost of a number of the bronze figures, busts, and heads sculptured by Miss Malvina Hoffman and placed on exhibition in the hall. The balance of the cost of this notable exhibit illustrating the races of mankind has been met by generous contributions, totaling more than \$150,000, from Mr. Marshall Field, Mrs. Stanley Field, and Mrs. Charles H. Schweppe.

Mr. Marshall Field is the donor of sculptures of a Bushman family, an aged Bushman, a Batwa boy, a Mangbetu woman, a Negro from Dahomey, an Ituri Pygmy group, a fisherman from Sicily, a Vedda, a Rajput woman, a Singhalese, an Indian Brahman, an Afghan, an Andaman Islander, an Eskimo man and woman, four Chinese, a Tibetan, a Manchu, a Japanese, a Malay, a Dyak, and an Australian aborigine.

Mrs. Stanley Field presented the sculptures of a Bushman woman, an African dancing girl of the Sara tribe, a woman from the Sudan, a Senegal Negro, an Abyssinian Hamite, a Breton woman, a Basque, an Arab, a Bengali woman, a Burmese, a Mongol, a Tibetan woman, a Japanese lady, a Blackfoot Indian, a Hawaiian, a Samoan, a Jakun woman, a Javanese boy and woman, and a group of Malayan cock-fighters consisting of two men, a woman, and a boy.

The sculptures of a Shilluk warrior, two Negroes, a Somali, an Ubangi woman, a Nubian, a Frenchman, an Anglo-Saxon, a Chinese,

two Kashmiris, a Bengali, a Tamil, a Chinese jinriksha man, two Ainus, a Hawaiian surf-rider, an Australian aborigine mother and child, a Balinese woman, a Maya, a Patagonian, a Georgian, a Lapp, and an Italian were presented by the late Chauncey Keep.

Mrs. Charles H. Schweppe contributed to Chauncey Keep Memorial Hall the group of three bronze figures of heroic size symbolizing the unity of mankind, which occupies the center of the hall, the stone head of an Indian woman from Jaipur, the limestone bust of a Chinese woman, and the black marble head of an Abyssinian woman.

Miss Hoffman, the sculptor, presented the head of a Shanghai Chinese sculptured in limestone. At the end of the year she was engaged in modeling the remaining pieces which are to be placed in the hall.

A collection of silver ornaments and other jewelry worn by the Druze women in the Lebanon, Syria, was obtained and presented by Miss Nejla Izzeddin, of the Oriental Institute of the University of Chicago, who last year made an anthropometric survey of the Druzes of Syria.

A collection of Arab household equipment used by the modern Arabs of the Kish area is a gift from Mr. Henry Field, of Chicago. The collection contains also interesting camel bags of the Beduins, and a coffee bag, measure, pestle and mortar of the Druzes. Likewise presented by Mr. Field were twenty-five pottery sherds with painted designs, and a glass vessel which he excavated at Niliat, about ten miles east of Kish.

Mr. Field also presented a collection of twenty-one chert projectile points, resembling somewhat those found with fossil bison at Folsom, New Mexico.

From the Musée d'Ethnographie, Paris, the Museum received in exchange four objects collected by the Dakar-Djibouti Expedition in 1931. Since the Museum has no other material from French West Africa, these objects are especially useful. Two of them, a musical instrument and a painted stone, were used in sacred ceremonies of initiation. Mr. H. G. Moore, of Peoria, Illinois, presented five musical instruments—a drum of fine workmanship from Zanzibar, three stringed instruments of Arab origin which are used in North Africa and western Asia, and a primitive one-stringed instrument consisting of a wooden resonator, used by Hottentots and some southern Bantu tribes.

Through a gift from Mrs. Laura C. Boulton, of Chicago, there have been added several valuable objects to the collections from Angola, Portuguese West Africa. Included is a marimba, an excellent example of this kind of musical instrument, made by fastening thin slats of wood to a frame. Under each piece of wood is a gourd that gives resonance when the wooden slats are beaten with rubber-headed sticks. Like this marimba, a tubular drum presented by Mrs. Boulton is valuable because of the increasing rarity of such instruments. Owing to the advance of European influences difficulty is experienced in finding artisans who are able to make these instruments, and musicians who can play them. A finely carved mask of the Vachokue tribe of eastern Angola is of scientific interest because of its association with initiation ceremonies. The collection also includes carved wooden staffs and basketry.

By exchange with the National Museum of Copenhagen, Denmark, there were received a number of reproductions of well-selected implements belonging to the Danish Maglemosean and kitchen-midden cultures, together with a number of original specimens representing various types of implements of these periods.

CATALOGUING, INVENTORYING, AND LABELING—ANTHROPOLOGY

Thirty-four of the forty-seven accessions received during the year have been entered in the inventory books. Six accessions of previous years and parts of seven others have also been entered.

The work of cataloguing has been continued as usual, the number of catalogue cards prepared during the year totaling 1,492. The total number of catalogue cards entered from the opening of the first inventory volume is 207,375.

The catalogue cards prepared are distributed as follows: archaeology and ethnology of North America, 130; archaeology and ethnology of Mexico, Central and South America, 275; archaeology and ethnology of China and Japan, 131; archaeology of the Gobi Desert, Mongolia, 178; ethnology of Melanesia, 2; ethnology of Africa, 22; archaeology of the Near East, 27; archaeology of continental Europe, 702; archaeology of England and Scotland, 24; physical anthropology, 1. All these cards have been entered in the inventory volumes, which number fifty-seven.

A total of 10,051 labels for use in exhibition cases was supplied by the Division of Printing. These labels are distributed among the collections as follows: classical archaeology, 1,911; Chauncey Keep Memorial Hall, 540; Hall of the Stone Age of the Old World, 1,678;

Melanesia, 2,337; China, 1,880; Australia, 452; Africa, 42; Southwest, 840; Central and South America, 357; and 14 hall labels. The Division of Printing also supplied 2,650 catalogue cards and 100 accession number stickers for use in the files.

The number of photographs mounted in albums is 700. Five new albums were opened. To the label file 990 cards were added.

INSTALLATIONS AND REARRANGEMENTS—ANTHROPOLOGY

The Department has an exceptional record this year in that two new halls were opened and three halls were completely reorganized in such a way that they present an entirely new appearance.

One hundred and five exhibition cases were installed during the year, distributed as follows:

Edward E. and Emma B. Ayer Hall (Hall 2).....	26
Southwest Archaeology and Ethnology (Hall 7).....	8
Archaeology and Ethnology of Mexico and Central America (Hall 8).....	1
George T. and Frances Gaylord Smith Hall (Hall 24).....	9
Ethnology of China and Tibet (Hall 32).....	2
Joseph N. Field Hall (Hall A).....	23
Ethnology of Australia (Alcove A1).....	5
Stone Age of the Old World (Hall C).....	25
Ethnology of Africa (Hall D).....	1
Total.....	105

The collections pertaining to classical archaeology, chiefly from Italy, displayed in Edward E. and Emma B. Ayer Hall (Hall 2), have been completely revised, relabeled, and reinstalled in twenty-six cases by the Curator. The material has been carefully studied and sifted, unessential objects have been eliminated, and many pieces not previously shown have been placed on exhibition. Above all, a much clearer and more intelligent arrangement has been effected. With the exception of surgical and musical instruments and some steelyards and weights, which have been installed in one case, all metal reproductions of Greek and Roman bronzes and furniture have been removed from exhibition. The collection is particularly strong in Etruscan and Pompeian archaeological material. The Etruscan exhibits are displayed in fourteen cases north of the stairway that leads to the ground floor and divides the hall into two equal sections. There is a comprehensive display of plain, black, and painted Etruscan ceramics, and of marble, alabaster, and tufa cinerary urns and sarcophagi. Three of the sarcophagi, decorated with marine monsters and sphinxes in bright colors, are unique. South of the stairway are exhibited household utensils of bronze, iron, pottery, and glass found in Pompeii, Boscoreale, and other places in Italy. The frescoes formerly shown in

the hall are now displayed in the adjoining corridor, where they can be seen to greater advantage. At the south end of the hall there are four cases containing good specimens of Oriental and Roman glass to which some fine examples of colored glass found in the Sassanian palaces at Kish have been added. Each case is fully labeled and provided with an instructive map.

Chauncey Keep Memorial Hall (Hall 3) was opened to the public on June 6. It contains sculptures in bronze and stone illustrating the principal types found among the races of mankind, the work of Miss Malvina Hoffman. On account of the unique character of its contents, the hall required special treatment and a great amount of thoughtful planning. New resources of museum technique were applied to it, and a great deal of construction work had to be undertaken. Alcoves were built to provide a suitable setting for the sculptures. Numerous experiments were made with reference to the color of backgrounds and systems of lighting, until at last a satisfactory and harmonious exhibition was achieved. The exhibits, consisting of full-length figures, busts, and heads, are arranged in geographical order, sections being devoted to each of the principal racial divisions—those of Africa, Europe, Asia, America, Oceania, and Australia. Included are several attractive groups, such as a Bushman family, Ituri Forest Pygmies, Malayan cockfighters, and an Australian aborigine mother and child. Thirty-one colored transparencies representing various racial types, made under the direction of Miss Hoffman, are shown at the east end of the hall. Installation of the hall is not yet completed. A number of bronze heads and a full-length figure of a Pueblo Indian woman remain to be made, and special exhibits in physical anthropology will be installed during the coming year. Two views of Chauncey Keep Memorial Hall are shown in Plates III and IV of this Report.

The reorganization of Hall 7 was continued during the year under the direction of Assistant Curator Martin. Eight cases of Southwestern United States archaeological and ethnological material were placed on exhibition. Most of the objects, including buffalo-hide shields, painted buffalo robes, and pottery from pueblos in New Mexico, as well as ancient pottery, textiles, baskets, and bone, stone, and wooden artifacts, were never before exhibited. Noteworthy are the rare and well-preserved objects recovered from Cliff Dweller pueblos and dry caves containing Basket Maker burials. The old-style black labels have been replaced throughout this hall with short, non-technical statements on buff cards in black type.

The Hopi house was thoroughly cleaned, and the life-size figures in it were repainted by Mr. Leon L. Pray, of the Department of Zoology. The Hopi altars were regrouped, and the models of the pueblo villages repaired and cleaned. Hall 7 now presents an orderly and attractive appearance.

In Hall 8, a case of Guatemalan textiles was reinstalled so as to enable the exhibition of the man's costume from Santo Tomas, Chichicastenango, presented this year by Mrs. Wills B. Lane, as well as textiles collected in 1931 by the Third Marshall Field Archaeological Expedition to British Honduras.

In George T. and Frances Gaylord Smith Hall (Hall 24) nine additional cases were installed this year. These comprise four cases of ancient Buddhist and Taoist marble sculpture, a case of Buddhist and another of Taoist bronze votive effigies, a case of T'ang dynasty tombstones, an exhibit illustrating the neolithic period of China, and a case of rhinoceros-horn cups. Forty-six framed paintings and tapestries and one cut velvet hanging were distributed over the walls of this hall and the South Gallery. The installation of this hall is now complete.

Reinstallation of Hall 32, devoted to the ethnology of China and Tibet, has been begun. Plans have been worked out, and a case of Chinese fans has been attractively installed. A case of Tibetan costumes, placed on dummies, has been reinstalled.

Rearrangements were made in several cases of the gem room (H. N. Higinbotham Hall, Hall 31), and a gold beaker from Peru, presented this year by Mrs. Richard T. Crane, Jr., has been added to the case of ancient American gold ornaments.

During the year exhibits in twenty-eight cases were installed or reinstalled on light-colored backgrounds in Joseph N. Field Hall (Hall A) under the direction of Assistant Curator Albert B. Lewis. These cases contain ethnological material from New Guinea, the Admiralty Islands, New Britain, the Solomon Islands, New Hebrides, New Caledonia, and some of the smaller Melanesian islands. Opportunity was taken to place on exhibition many objects not previously shown. One case, that representing the region around Astrolabe Bay, New Guinea, contains new material exclusively.

The principal change, aside from the lighter backgrounds, has been in the rearrangement and grouping of the material so as to illustrate native life and industries to greater advantage. Numer-

ous photographs have been added to show local types of dwellings, and the ordinary clothing and ornaments worn by men and women, as well as their special festival garb. Wherever possible, photographs illustrating native industries and methods of work were also added. These are shown together with specimens in various stages of manufacture. Examples are the making of shell beads for money in New Guinea and the Admiralty Islands; the making of large shell rings on the island of Tanga, where such rings are used for both money and ornament; the making of somewhat similar rings, but by an entirely different method, in northern New Guinea at Berlin Harbor; and the making of string and fish-nets in the same region.

Among numerous objects of interest are a series of shields and spears from New Guinea and New Britain; elaborately barbed and ornamented spears and arrows from the Solomon Islands; a great variety of clubs from the New Hebrides and New Caledonia; stone-headed clubs from eastern New Guinea; remarkable carved and painted tablets and figures from the Gulf of Papua; and huge figures from the New Hebrides carved out of wood and tree ferns.

During the year installation of five cases illustrating the ethnology of Australia was completed under the direction of Assistant Curator Wilfrid D. Hambly. Since the foundation of the Museum some forty years ago, ethnological material from the aborigines of Australia has been gradually acquired by purchase and exchange. A selection made from this material has been so arranged as to represent four characteristic culture areas, each of which has distinctive forms of boomerangs, shields, clubs, and spear-throwers. An exceptionally fine collection of spear-heads, made from quartz and glass, is displayed, along with the bones used in pressure flaking to produce the finely serrated edges. Among objects connected with native magical practices are shoes of emu feathers used in the tracking and ritual murder of an enemy; pointing bones for injuring a foe by magical rites; and a skullcap of gypsum such as is worn by widows at the graves of their husbands. A representative series of personal ornaments, and examples of domestic implements and utensils, are displayed on the screens. An instructive map showing tribal distribution, especially drawn for this exhibit, is hung on the wall. The Australian collection has been placed in an alcove designated A1, located between Joseph N. Field Hall (Hall A) and Hall E.

The installation of the Hall of the Stone Age of the Old World (Hall C), was completed this year, and the hall was opened to the public in July. Four new groups were installed in addition to the

four completed in 1932. Also, nine floor cases with screens, and eight special wall cases, were installed this year under the direction of Assistant Curator Henry Field. The hall now contains a total of eight large groups, fifteen screen cases, and eight special wall cases. The groups, which are life-size, are as follows: (1) Chellean scene, France; (2) Neanderthal family at Devil's Tower rock-shelter, Gibraltar; (3) cave of Gargas, France, illustrating the dawn of art in the Aurignacian period; (4) sculptured frieze of Le Roc, France, illustrating the art of the Solutrean period; (5) rock-shelter of Cap-Blanc, France, showing frieze of animals and Magdalenian sculptures in high relief; (6) a boar hunt of the Azilian period; (7) sun-worship by a priest of the neolithic period at Carnac in Brittany, France, illustrated in Plate V of this Report; (8) Lake Dwellers of Switzerland. These groups were planned, and data for them were secured, by Assistant Curator Field with the cooperation of Abbé Henri Breuil, of Paris. The sculptural work was executed by Mr. Frederick Blaschke, who has succeeded admirably in restoring the various types of prehistoric man as scientific research indicates they must have appeared in life. The caves in groups 3, 5, and 6 were also reproduced by Mr. Blaschke, and are based on studies of the originals. The painted backgrounds are the work of Staff Artist Charles A. Corwin. Messrs. Marshall Field, Frederick H. Rawson, and Silas H. Strawn, members of the Board of Trustees of the Museum, have contributed to the cost of the exhibits in this hall.

The eight special cases contain the following: the skeleton of a Magdalenian woman from Cap-Blanc, France, which is the only Magdalenian skeleton in the United States; a reproduction of the clay bison at Tuc d'Audoubert, France, the earliest examples in existence of modeling in the round, of the Magdalenian period; a tusk of *Elephas antiquus* from Steinheim an der Murr, Germany; four colored reproductions of Aurignacian cave paintings; a colored plaster copy of the Solutrean sculpture of a pair of fighting male ibexes, one of the most important sculptures of the upper paleolithic period; six colored reproductions of Magdalenian cave paintings from Font-de-Gaume, France; eight drawings of animals contemporary with prehistoric man in western Europe; three drawings by the late Amedée Forestier of reconstructed neolithic hunting scenes; and photographs and reconstructions of Lake Dweller sites in southern Germany excavated by Dr. R. R. Schmidt.

The archaeological collections, shown in fifteen screen cases, are arranged in chronological sequence, covering the periods between

the Pliocene flint implements of Ipswich, England, and the iron age of Neuchâtel, Switzerland. These exhibits, which comprise human and animal remains, and artifacts, are placed opposite each of the groups to which they correspond in time. Especially noteworthy are the type collections from Solutré and Tarté in France; original Neanderthal fragments; the Aurignacian necklaces from Sergeac, in France; the Aurignacian objects from Czechoslovakia; Magdalenian carvings on bone and stone; and a series of Azilian painted pebbles.

Altogether the Hall of the Stone Age presents, so far as the present state of science permits, a vivid, colorful, and impressive picture of the character and life of prehistoric man in western Europe.

The picturesque textiles from Algeria presented by Mr. Homer E. Sargent have been installed in a screen case and placed on exhibition.

Much time and care was spent on the rearrangement of storage rooms on the third floor. On completion of the hall of Chinese archaeology surplus material from China was sorted, classified, and neatly arranged with appropriate labels on the steel racks in Room 66. Room 28 was cleared and is now reserved for the reproductions of Greek and Roman bronzes and for surplus material from Egypt and Melanesia. Much of the material in storage is available for exchange or other purposes.

The study collection in physical anthropology, housed in steel cabinets in Room 39, is now entirely arranged and comprises 450 complete skeletons, 350 of which are from North America and 100 from South America, mainly from Peru; 1,100 skulls, 350 of which are from North America, 300 from South America, 300 from the Pacific area, 50 from Kish, Mesopotamia, and 100 from various other localities; 2,000 fragmentary human remains including skulls and parts of skulls, long bones, and other bones; and ten articulated human skeletons including a male and female aboriginal Australian. There are also a series of casts of racial type heads (mainly Asiatic) and facial masks from Africa.

The friendly cooperation of Dr. Gerhard von Bonin, Assistant Professor of Anatomy at the University of Illinois, in restoring and classifying skulls and skeletal material, is gratefully acknowledged.

The prehistoric archaeology study collection in Room 40, which contains important material from Europe, Africa, Asia, Australia, and Central America, has been rearranged. This collection numbers approximately fifty thousand objects of stone and bone. Combined

with the material from prehistoric Europe on exhibition in the Hall of the Stone Age of the Old World, this study collection enables students to examine representative series from all important ancient sites so far discovered. Photographs of European sites made by the three Marshall Field Expeditions to Western Europe are also available.

Repairing and numbering of specimens and poisoning of exhibition cases and perishable material were taken care of in the usual manner.

The Chinese gateway formerly shown in Stanley Field Hall, a number of Indian totem poles, grave posts and house posts, and two articulated skeletons were loaned by the Museum to A Century of Progress exposition where they attracted many visitors. Because of lack of suitable exhibition space in the Museum the gateway and the totem poles and posts were sold after the close of the exposition.

DEPARTMENT OF BOTANY

EXPEDITIONS AND RESEARCH

No expeditions were conducted by the Department of Botany during the year. In Europe, however, Assistant Curator J. Francis Macbride continued his work, described in the Reports of 1929 to 1932, inclusive, of photographing, under a grant from the Rockefeller Foundation, type specimens of plants preserved in European herbaria. During 1933 about 3,000 additional negatives were made, most of which already have been received at the Museum. The collection of negatives has now reached a total of more than 26,000, representing almost as many species, chiefly South American plants.

During the early part of the year Mr. Macbride concluded his work at the University Botanical Museum of Copenhagen, where he photographed many of the Central American and Mexican types obtained by the famous collectors Oersted and Liebmann, as well as those brought from Brazil by early Danish explorers. The success of his work at Copenhagen was facilitated by the cordial cooperation of Dr. Carl Christensen, who is in charge of the herbarium.

After completing work at Copenhagen, Mr. Macbride returned to Berlin, where he made further photographs of the types preserved in the remarkably extensive herbarium of the Berlin Botanical Garden and Museum. As on previous visits to Berlin, Mr. Macbride received the most hearty assistance from the director, Dr. Ludwig Diels, and from the staff of the museum and herbarium, and he

was thus enabled practically to complete the photographing of South American types.

Toward the middle of the year Mr. Macbride proceeded to Switzerland, where he had already photographed the types in certain families. Resuming his work there, he was still engaged at Geneva at the end of the year. The Delessert and De Candolle herbaria of the Conservatory and Botanic Garden of Geneva are much visited by botanists because of the great number of historic and type specimens that they possess, and several months more will be needed to complete the photographic work on them. Since specimens of the De Candolle Herbarium, which is doubtless the most famous single large plant collection in the world, are never lent outside the herbarium, photographs of its type specimens are particularly valuable for use in America and other countries. For more than a century the botanists of Geneva have been celebrated for their friendliness toward visitors, and for their cooperation with botanists of other countries, and Mr. Macbride has received the most enthusiastic and kindly assistance from the present director of the herbaria, Dr. B. P. Georges Hochreutiner, who has helped in every possible manner to make the work a success.

Special mention should be made of the assistance of Dr. Gustave Beauverd of the Boissier Herbarium and Professor Robert Chodat of the University of Geneva, who courteously lent for photographing a large number of types of the Boissier Herbarium, particularly palms and orchids. Mr. Macbride's work was aided, also, by a generous loan from the Botanical Garden of Leningrad, through Professor B. A. Keller, of certain types of palms of which photographs were made.

It would be impossible to exaggerate the value of this photographic work, which has now been continued some four and a half years. The 26,000 photographs thus far obtained represent a great advance in the practical work of systematic botany in America. Formerly, in the determination of large collections of plants from South America, it was almost imperative to visit European herbaria to make exact identifications, but with these photographs at hand it is now possible to make determinations with almost as great ease as if the original specimens were before one's eyes. While the advantages are most immediately apparent in the Herbarium of Field Museum, they are also available to botanists generally in the United States and other countries, for prints from these negatives

are available at cost of printing to all institutions and individuals desiring them.

During the year the Museum Herbarium has been in constant use not only by the staff of the Department of Botany, but also by an unusually large number of visitors from all parts of the United States and various foreign countries.

The large plant collections received during the year have occupied fully the time of the Herbarium staff. Through the employment of an additional assistant in plant mounting, it has been possible to prepare for insertion in the Herbarium a large quantity of exceptionally valuable and useful material, chiefly from Central and South America. In the latter part of the year the number of plants mounted was further increased due to assistance received from extra workers furnished by the Illinois Emergency Relief Commission and the Civil Works Service of the federal government. All the mounted material has been distributed promptly into the permanent collections, for expansion of which several new steel cases have been provided.

There were submitted to the Herbarium for study and determination 199 lots of plants, consisting of 10,330 specimens. Of these, 52 lots, consisting of 2,318 specimens, were named and returned to the senders, while 147 lots, comprising 8,012 specimens, were retained by the Museum. In addition, there were determined many plants of the Chicago region, brought to the Museum by visitors, teachers, and students, or forwarded by mail. There were answered, also, many inquiries by mail and telephone, calling for the most diverse information upon botanical subjects.

Associate Curator Paul C. Standley published fourteen papers based more or less directly upon the Herbarium collections, five of them, dealing with American trees, in *Tropical Woods*. His *Flora of Barro Colorado Island, Panama*, with 178 pages, a map, and twenty-one plates, was issued as No. 5 of the Contributions from the Arnold Arboretum of Harvard University.

Members of the Department staff prepared for *Tropical Woods* many abstracts and reviews of current literature relating to tropical trees and shrubs, and contributed numerous signed articles and brief items to *Field Museum News*.

ACCESSIONS—BOTANY

During 1933 the Department of Botany received 251 accessions, comprising 30,227 specimens, both numbers being somewhat lower

than those of the preceding year, although the value of the material was perhaps equally great. The accessions consisted of specimens for the Herbarium, for the exhibits, and for the wood and economic collections. Of the total number, 7,047 were gifts, 13,185 were received through exchange, 732 were purchased, and the rest were derived from miscellaneous sources.

Of the Department's total receipts of 30,227 specimens, those for the Herbarium amounted to 29,794 items—plant specimens, photographic prints, and negatives. The largest and most important accession of the year consisted of 2,400 specimens from the Conservatory and Botanic Garden of Geneva, received in exchange through the courtesy of the Director, Dr. B. P. Georges Hochreutiner. The two shipments containing this material are among the most valuable and useful consignments of herbarium specimens ever dispatched from Europe to the United States. They consist chiefly of historical collections, principally from South America. Most of them are duplicate types or critically determined specimens. These shipments have added to the Museum many hundreds of species which previously were not represented here, and probably not in any other American museum.

Another collection of valuable specimens of the same nature was received in exchange from the University Botanical Museum of Copenhagen, through Dr. Carl Christensen. The material contains 947 specimens, likewise largely of South American plants, particularly from the Brazilian collections of Warming and Lund. Mexican and Central American plants obtained by Liebmann and Oersted are also included. A large proportion of these specimens represent type material.

From the previously mentioned photographic negatives of type specimens of tropical American plants made in European herbaria by Assistant Curator Macbride, there were added to the Herbarium about 2,500 prints, thus making available for comparison many species not formerly represented. Three other American institutions purchased from Field Museum 2,377 prints from these negatives.

While under existing financial restrictions it has not been possible for the Museum to buy some of the highly desirable series of tropical plants which have been offered for sale, the Herbarium has nevertheless received a large amount of highly valuable material through gifts and exchanges. Many of the most desirable contributions have been received in return for the determination of the specimens. A striking example is a lot of 1,071 plants of the Yucatan peninsula,

forwarded for determination by the Department of Botany of the University of Michigan, through Professor H. H. Bartlett. These make a substantial addition to the Museum's already unequalled representation of the flora of that unique region.

The Companhia Ford Industrial do Brasil, of Pará, Brazil, has continued its sendings of herbarium and wood specimens from the Amazon Valley, and during 1933 forwarded herbarium material of 203 trees and other plants, most of which supplement collections obtained in earlier years. Other important Brazilian collections received include 292 plants obtained by Mrs. Ynes Mexia, of Berkeley, California, and 210 specimens collected by José Frambach and presented by Dr. B. E. Dahlgren, Acting Curator of the Department of Botany.

Deserving of special mention among the gifts to the Herbarium during 1933 are 652 plants from Colombia, presented by the collector, Mr. Alexander E. Lawrance, of Bogotá; 474 specimens, chiefly from the Eggers Ecuador collections, presented by the University Botanical Museum, of Oslo, Norway; 562 plants, chiefly trees of Central and South America, presented by the School of Forestry of Yale University, through Professor Samuel J. Record; 436 Costa Rican plants, received from the National Museum of San José, through Professor Manuel Valerio; 225 Costa Rican specimens, collected and presented by Professor Harvey E. Stork, of Northfield, Minnesota; 314 plants of British Honduras, collected and presented by Mr. William A. Schipp, of Stann Creek in that country, continuing his previous series; 474 Mexican plants presented by the collector, Mr. C. H. Mueller, of Cuero, Texas; 348 Mexican plants presented by Mr. H. W. von Rozynski, of Jaumave, Mexico; 225 plants of the United States, collected and presented by Mr. Hermann C. Benke, of Chicago, who previously had contributed other extensive collections to the Herbarium; and 324 specimens, chiefly Hawaiian Compositae, given by Dr. Earl E. Sherff, of Chicago.

Besides the collections specifically mentioned above, the Museum received through gifts and exchanges much other valuable herbarium material from tropical America, the United States, Canada, and other parts of the world. A summary of this will be found in the List of Accessions for the year (p. 94 of this Report).

The number of specimens accessioned during the year especially for the economic collections numbered 437. Some of the principal ones are mentioned in the account of the new installations made during the year (p. 50). Among others worthy of special mention



SOUTH END OF HALL OF PLANT LIFE
(Hall 29)

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

are sheets of crêpe and vulcanized rubber from the Firestone Tire and Rubber Company, of Akron, Ohio; specimens of rubber from Sumatra presented by Van Cleef Brothers, of Chicago; eight planks of Brazilian woods, representing Amazonian timbers at present being marketed in the United States, from the Ford Motor Company, Dearborn, Michigan; specimens of Honduras rosewood and padauk from Mr. W. S. Scribner of the Craftsman Wood Service Company, Inc., Chicago; and a trunk of a *Livistona* palm from the Garfield Park Conservatory, Chicago.

For the mahogany exhibit, Park Richmond and Company, of Chicago, presented an unusually fine board of Santo Domingo mahogany; T. Hofmann-Olsen, Inc., of New Orleans, Louisiana, gave two boards of Cuban mahogany, plain and figured; the Mengel Company, of Louisville, Kentucky, a board of Honduras mahogany; and Ichabod T. Williams and Sons, of New York, a board of Peruvian mahogany.

Through the courtesy of S. C. Johnson and Son, Inc., of Racine, Wisconsin, there were received four specimens of vegetable oils from Ceará, Brazil. From the Palm Oil Company, Plainfield, New Jersey, fourteen samples of palm nuts and oil were obtained. From Mr. G. B. Reuss, Hohen Solms, Louisiana, through the cooperation of the pecan culturist at the Agricultural Experiment Station, University of Florida, there were received fifty varieties of pecan nuts. The Division of Pomology, College of Agriculture, Davis, California, supplied a fruiting branch of jujube and almond trees. Mr. C. M. La Follett, of Salem, Oregon, furnished samples of English walnuts and filberts.

For the paper exhibit, the most notable contributions were samples of linen rag paper from Crane and Company, Inc., Dalton, Massachusetts; linen rag paper from Worthy Paper Company, West Springfield, Massachusetts; bamboo paper from Thomas N. Fairbanks Company, New York; and esparto pulp and paper from the McLaurin-Jones Company, Brookfield, Massachusetts, and from Smith and McLaurin, Ltd., of Milliken Park, Scotland.

Many photographs desired for display in conjunction with exhibits in the various halls were furnished by individuals and scientific institutions among whom may be especially mentioned: the Forest Service and Bureau of Plant Industry of the United States Department of Agriculture; the Arnold Arboretum of Harvard University; Dr. S. A. Barrett, Director of the Public Museum, Milwaukee, Wisconsin; Mr. Hermann C. Benke, of Chicago; and

the Firestone Tire and Rubber Company, Akron, Ohio. Professor Ruben de Souza Carvalho, of São Paulo, Brazil, contributed twenty photographs illustrating the coffee industry of the state of São Paulo.

The Department distributed through exchanges 13,871 herbarium specimens, woods, and photographs to forty-six institutions and individuals of North and South America, Europe, and Asia. Much of the material distributed consisted of duplicates obtained in Peru by the Marshall Field Expeditions. Loans of mounted herbarium specimens amounted to forty-seven lots, comprising 1,963 specimens.

CATALOGUING, INVENTORYING, AND LABELING—BOTANY

During 1933 the permanent collections of the Herbarium were increased by more than 25,000 sheets of plants and photographs, besides several thousand sheets bearing original printed descriptions of new species or other published matter useful for study purposes. The total number of mounted specimens now in the Herbarium is 678,363. There were removed from the collections during the year 1,138 duplicate specimens. The specimens labeled and incorporated into the collections of the Department of Botany as a whole now number approximately 700,000. Additions to the records of the collections of economic material totaled 437 in 1933. New labels were written for a large part of the exhibits in the Hall of Plant Life (Hall 29), for all new exhibits, for the economic reference collections, for thousands of herbarium specimens, and for other thousands of duplicate specimens distributed in exchange.

From the Gray Herbarium of Harvard University 3,602 cards were received in continuation of the index of new species of American plants, and these were inserted in the Museum's file of these cards. Several thousand cards were prepared and added to the catalogue of the Department library for the books and pamphlets on various botanical subjects.

INSTALLATIONS AND REARRANGEMENTS—BOTANY

In the Hall of Plant Life (Hall 29) a great improvement has been effected by a departure from the usual alcove arrangement still maintained in the other halls of the Department. With the blocking up of the windows and the change to artificial illumination, it has been possible to vary the regular succession of equal alcoves which, in this long hall, formerly produced a monotonous effect of long rows of exhibition cases, giving prominence to them rather than to their contents. The rearrangement has resulted in a much more



TOBACCO PLANT (*Nicotiana tabacum*)

(Hall 28)

Reproduced in Plant Reproduction Laboratories,
Department of Botany of the Museum

THE LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA

pleasing appearance of the hall as a whole (see Plate VI). The larger vistas opened facilitate a rapid inspection of the exhibits with much less fatigue to the visitor. The change was accomplished with relatively little work, although it called for a certain amount of reinstallation on account of the new juxtaposition of exhibits.

A considerable amount of new material was added to the exhibits in this hall. To the mallows, hitherto scarcely represented, there have been added some life-like reproductions of plants, prepared in the Plant Reproduction Laboratories of the Museum. An inspection of this new installation reveals at a glance that this family includes not only various important food plants, such as the potato, tomato, eggplant, and the pimientos, but also the scarcely less important tobacco plant, as well as various poisonous and drug-producing plants such as stramonium and belladonna. The reproduction of a flowering branch of the purple and white *Brunfelsia*, which was placed on exhibition last year, acquires a new interest now that it is found in its proper botanical association with the more widely known examples of this family.

Gourds, cucumbers, squashes, and their allies, form another family of economic importance that has also been lacking from this hall until recently. A beginning toward its representation has been made by the installation of a half case.

The Panama hat palm represents an interesting plant family which partakes of the botanical characters of both aroids and palms. The species which furnishes material for the famous hats of Ecuador and Peru, commonly attributed to Panama, is shown by a handsome reproduction prepared from material obtained by the Stanley Field Guiana Expedition in 1922. Besides serving its purpose as a botanical exhibit, this specimen is an especially interesting example of Museum technique in the employment of celluloid for the representation of plant forms. This exhibit supplements the one in Hall 2S showing the various steps in the manufacture of a Panama hat.

The aroids are now well represented, a notable addition this year being a reproduction of *Montrichardia*, a large aquatic calla lily of the rivers of northern South America. It is one of the chief food plants of the hoatzin, a primitive claw-winged crested bird. Material for this, as well as for most of the items added to the exhibits of which mention follows herewith, was secured in Pará in 1929 by the Marshall Field Botanical Expedition to the Amazon. Perhaps the most interesting, and certainly the most striking of these, is a reproduction of a cluster of the edible, brilliantly colored

fruit of the peach palm. In size and appearance this fruit, which grows in large grape-like bunches, is more like the apricot than like the peach. It is starchy, has a chestnut-like flavor when cooked, and is highly esteemed as an article of food where it grows.

A *Rollinia* called "biribá," a large edible fruit of the custard-apple or cherimoya family, as yet little known outside of the tropics; a fruiting branch of *Lucuma*, "abiu," of the sapodilla family; and a branch of *Sterculia*, "cupuassu," with its large cacao-like fruit, have all been reproduced from material and studies on hand, and have been added to the exhibits. The cupuassu is common in the lower Amazon region where its fruit is esteemed rather for its fragrant and delicious pulp than for its seeds which furnish a cacao differing little from that of the cacao tree proper.

A "hand" of the large banana-like plantain and, by way of contrast in size, one of the small-fruited or dwarf bananas, have been added to the case containing the banana plant. Other minor additions to the plant reproductions in the hall are tubers of the Polynesian starch plant *Tacca*; a watermelon-like citron; and the chayote, a cucurbitaceous fruit or vegetable of the American tropics, now grown successfully in Florida.

The large and important rose family, which supplies the majority of fruits in the temperate zone, such as peaches, plums, cherries, and many common berries, has long been rather poorly represented in the hall. A recent addition to this exhibit is a splendid reproduction of an apple branch.

An excellent reproduction of a small fruiting branch of the sweet gum or liquidambar, of the witch-hazel family, has also been completed and installed in its appropriate place among the exhibits.

A half case of interesting material, mostly dried or woody, has been added to the cactus exhibit, together with some remarkable photographs of the giant cactus of the southwest, kindly furnished by Professor C. J. Chamberlain of the University of Chicago.

A large number of photographs have been added to the exhibits to illustrate various plants and features of plant life which otherwise could not be shown.

A handsome reproduction of a tobacco plant in flower has been placed in Hall 25 in conjunction with the economic exhibits of tobacco (see Plate VII).

The most important collection of economic plant material installed in Hall 28 during the year is that of essential oils, resinoids,

and essences. The series, consisting of seventy-five items, was presented by Fritzsche Brothers, Inc., of New York, due to the interest of Messrs. B. F. and M. B. Zimmer, their representatives in Chicago. Many of the oils were manufactured by Schimmel and Company, of Miltitz, near Leipzig, Germany, which also lent a number of pictures, and these were copied for display in conjunction with the exhibit. With each item there is shown material such as leaves, twigs, bark, or wood to indicate the source of the oil. Some of these were furnished by Parke, Davis and Company, of Detroit, Michigan; Vaughan's Seed Store, Chicago; the Garfield Park Conservatory, Chicago; and the United States Department of the Interior, Virgin Islands office.

An interesting exhibit added in 1933 is that of the Pará rubber tree (*Hevea brasiliensis*). The species is represented by two trunks, one from a plantation in Sumatra, donated by Van Cleef Brothers and Williamson Rubber Process Company, of Chicago, and the other from the islands of the lower Amazon, selected and photographed by the Marshall Field Botanical Expedition to the Amazon in 1929, and recently forwarded through the courtesy of Mr. Emilio Kauffmann, of Pará, Brazil. The specimen from Sumatra shows the herringbone method of tapping, generally practised on plantations, while that from Brazil shows the antiquated method of making incisions in the trunk with a small hatchet, still in use in parts of the Amazon forests. The exhibit includes also a reproduction of a fruiting branch of the rubber tree, based on material obtained in Pará by the Marshall Field Expedition of 1929; typical specimens of crude Pará rubber, showing the form in which it is marketed; and implements commonly used for tapping. This installation serves as a nucleus for an exhibit of rubber in general, and another case showing various other species is in preparation.

There was also installed in Hall 28 a series of the most important vegetable waxes, such as carnaúba, bayberry, candelilla and Japan wax. The carnaúba wax is especially well represented by several grades showing the classification generally adopted for commercial purposes in the localities of its origin in Brazil.

To the large photographs displayed in this hall, there were added pictures illustrating the sources of important plant products and phases of the industries connected with them. These include photographs of the tung oil tree of China, the kauri tree of Australia, the Chinese lacquer tree, a rubber plantation in Sumatra, a scene in a rubber warehouse in Pará, oil seeds on an Amazon dock, and

a chicle gatherers' camp in Yucatan. For their courtesy in supplying pictures from which some of the enlargements were made, the Museum is indebted to the Firestone Tire and Rubber Company, Akron, Ohio; the Arnold Arboretum of Harvard University; and the National Geographic Society, Washington, D.C.

The paper and tobacco exhibits received some further additions. To the display of cereal products there was added material given by the American Institute of Baking, of Chicago; Mr. N. Emmerson, of Chicago; and the International Milling Company, of Minneapolis, Minnesota.

The most important addition to the foreign woods displayed in Hall 27 is a series of mahoganies, obtained from various sources as noted under Accessions (List of Accessions, p. 94). One case is devoted to American species, represented by boards of Santo Domingan, Cuban, Honduran, Mexican, and Peruvian mahoganies of the genus *Swietenia*. In another half case are shown West and East African mahoganies of the closely related genus *Khaya*. The exhibit is of unusual interest as it affords opportunity to compare the figure and color displayed by the different species.

Another attractive addition is a group of five panels representing important Brazilian timbers, most of them well known in the American market, and mentioned as a gift from the Ford Motor Company among last year's accessions.

To the series of North American trees in Charles F. Millsbaugh Hall (Hall 26) there were added two species from the Pacific coast, western red cedar (*Thuja plicata*) and incense cedar (*Libocedrus decurrens*). Other species, still lacking in this hall, are on hand and in the course of preparation for exhibition.

DEPARTMENT OF GEOLOGY

EXPEDITIONS AND RESEARCH

Collecting for the Department of Geology has been limited to work which could be undertaken by members of the Department staff without appropriation for expenses from the Museum. The most important expedition carried out in this manner was that to the Paleocene and lower Eocene formations of Colorado, conducted by Mr. Bryan Patterson, Assistant in Paleontology, in continuation of work he began last year. The party included, besides Mr. Patterson as leader, Messrs. James H. and C. A. Quinn of Ainsworth, Nebraska. After establishing a base camp at Mesa, Colorado, the



FOSSIL SKELETON OF GROUND SLOTH IN THE MATRIX, PAMPA FORMATION, ARGENTINA

Ernest R. Graham Hall (Hall 38)

Marshall Field Paleontological Expedition to Argentina, 1926-27

THE BOARD
OF THE
UNIVERSITY OF CALIFORNIA

party worked in the Plateau Creek valley and along the Mesa-Debeque road.

A remarkable discovery, when the scarcity of fossils in these early formations is considered, was three intermingled skeletons, more or less complete, of the rare and interesting mammal, *Titanoides faberi*. Removal of these occupied the party for most of the summer. A small series of lower Eocene fossils was collected during a reconnaissance which extended northwards from Mesa as far as Riffle, Colorado. The expedition collected forty-seven specimens of fossil mammals, two fossil turtles, and a fossil lizard.

Assistant Curator Sharat K. Roy, accompanied by Mr. Floyd Markham, of Chicago, spent several weeks in September collecting invertebrate fossils in New Jersey, New York, and Pennsylvania. The expedition was primarily for the purpose of strengthening the Museum's Cambrian collections, and it obtained much choice material. Collecting was not confined to the Cambrian, however—the 615 specimens gathered ranged in age from Cambrian to Cretaceous, and included seven fossil fish as well as all classes of invertebrates. On two week-end trips to Blue Island, Illinois, Mr. Roy and Mr. Markham obtained twenty-three Silurian fossils.

Writing for publication has been carried on by Mr. Elmer S. Riggs, Associate Curator of Paleontology, and by Mr. Patterson, as opportunity offered. A preliminary description of the newly discovered South American marsupial sabertooth, *Thylacosmilus atrox*, a fossil of unusual interest, appeared as a Museum publication, and a memoir on the same fossil was read by Mr. Riggs before the American Philosophical Society and submitted to that society for publication. Mr. Patterson contributed to the *American Journal of Science* a short paper describing a new species of Paleocene amblypod, *Titanoides faberi*, and a more complete description of it was published in the *Proceedings of the American Philosophical Society*.

Investigation and description were actively continued of various portions of the collections made by the Marshall Field Paleontological Expeditions to South America, conducted from 1922 to 1927. The monograph on the Cerro Cuadrado petrified forest of Patagonia, based on collections made by these expeditions, which was submitted to the Museum by Dr. G. R. Wieland of Yale University last year, has been forwarded to the Carnegie Institution of Washington, D.C., for publication.

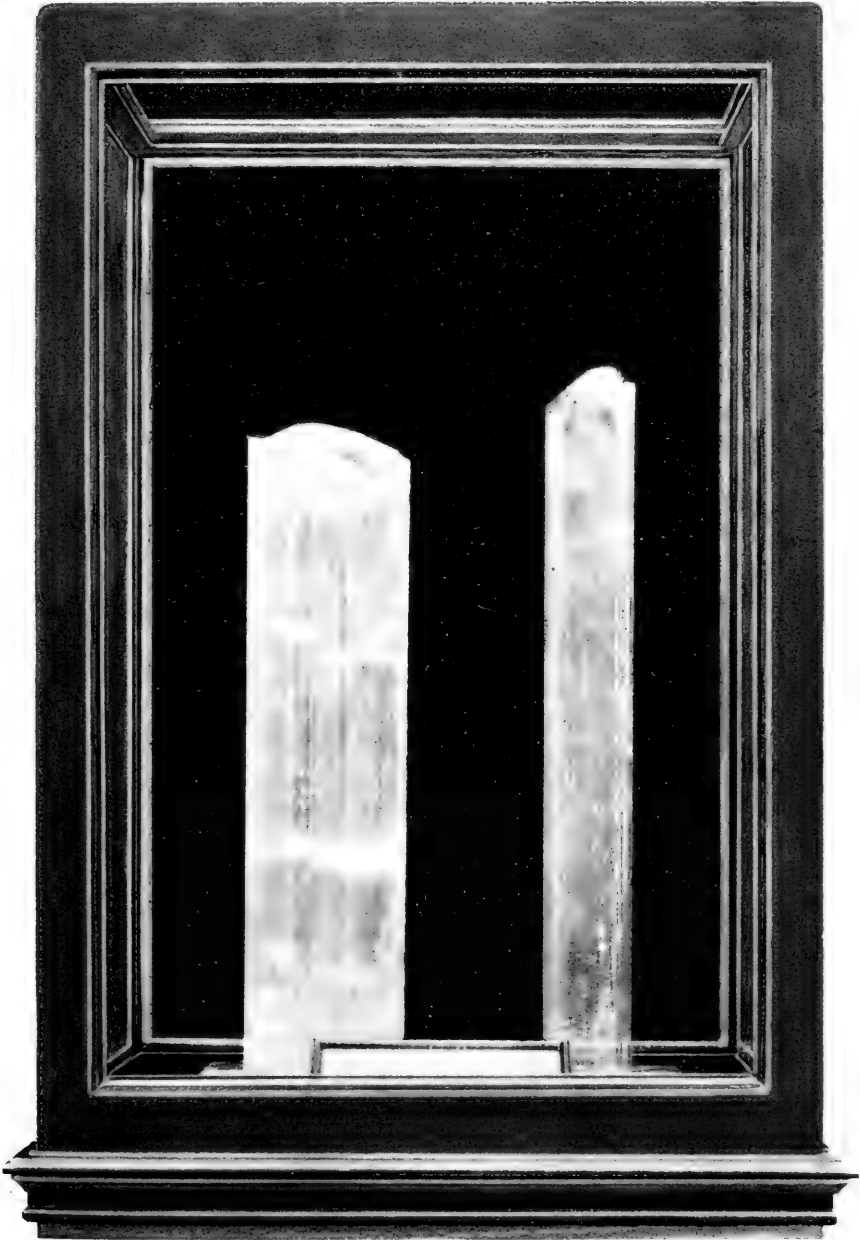
A description by Assistant Curator Roy of a remarkable new trilobite, *Dalmanites pratteni*, appeared as a Museum publication.

Two other papers by Mr. Roy, one on a new Phyllocarid, and the other on a new *Conularia*, have been completed and submitted for publication.

A biographical memoir of the late Dr. Oliver C. Farrington was written by Mr. Roy, and read by him at the December meeting of the Geological Society of America, and it is to be published by that society. Dr. Farrington, who had been Curator of the Department since 1894, died in November. A brilliant scholar, noted for his knowledge of all branches of geology, and especially renowned as one of the foremost authorities on meteorites and on gems and gem minerals, his death meant a great loss to the Museum and to the scientific world. His passing was felt with especial keenness by his associates in the Department of Geology, among whom he was held in truly affectionate regard, as well as the highest respect as a scientist of great erudition and a museum worker of outstanding skill.

Work on Mr. Roy's monograph on the paleontology of southeastern Baffinland has progressed normally. During the year it reached the stage where a comparative study of two earlier collections made by Charles Hall and the Seventh Peary Expedition was necessary. These collections are deposited in the American Museum of Natural History, New York, and in the United States National Museum, Washington, D.C. Mr. Roy visited each of these institutions for several days, making these comparisons.

The reported discovery of living bacteria in stony meteorites by Professor Charles B. Lipman, of the University of California, Berkeley, California, has aroused much interest and controversy in geological and biological circles, as this discovery, if confirmed, would point to a possible extra-terrestrial origin for the life of the earth. The discovery needs confirmation, and no more favorable place could be found than this Museum for the work necessary to this end. The Museum has the largest of all meteorite collections, and much research on meteorites has been done here. Also, the resources of the bacteriological laboratory of the University of Chicago and the cooperation of the bacteriologists there, are available. Mr. Roy has begun and nearly completed this work, using for this purpose four meteorites from the Museum collection, and the equipment of the university's bacteriological laboratory. The interest and cooperation of Dr. Noel Hudson of the university, and his assistant, Mr. Floyd Markham, have been invaluable. Mr. Roy has closely followed Professor Lipman's procedure so that the results of the two investigations may be comparable.



SELENITE CRYSTALS FROM CHILE

(Hall 34)

Marshall Field Brazilian Expedition, 1926

THE BOARD
OF THE
UNIVERSITY OF ILLINOIS

In the chemical laboratory of the Museum the numerous tests and analyses needed for identification of specimens were carried on as usual. An investigation of the nature of the corrosion of one surface of the Gladstone meteorite was made preparatory to its exhibition. A quantitative analysis of a chert was made, for publication, by Acting Curator Henry W. Nichols and Assistant Curator Roy. Ten analyses and identifications requiring chemical work were made for the Department of Anthropology, and for the same Department a bronze was treated by the Fink process. An investigation of a de-greasing problem was made for the Department of Zoology by Acting Curator Nichols and a member of the Zoological Staff. The facilities of the laboratory were used by a member of the Botanical Staff for the determination of the specific gravities of various woods. Some tests needed for the maintenance of the building were also made.

Mr. Nichols participated in the organization meeting of the Society for Research on Meteorites which was held at the Museum. This meeting took place several months before the death of Curator Oliver C. Farrington, who was elected Honorary President of the organization. Mr. Nichols was elected a councilor.

Members of the Department Staff contributed fourteen signed articles, and twenty-two unsigned articles and short items, to *Field Museum News*, and supplied data for twenty newspaper articles. Visiting scientists and members of museum staffs were received in the Department in unusually large numbers. Among the distinguished foreign visitors were Sir Arthur Smith Woodward and Mr. W. Campbell Smith, of the British Museum; Sir John Flett, of the Geological Survey of Great Britain; Dr. Victor van Straelen, Director of the Royal Museum of Natural History at Brussels; Dr. H. A. Brouer, of the University of Amsterdam; Professor Richard Willstätter, of Munich; M. Leon Bultingaire, of the Museum of Natural History of Paris, and Dr. A. W. Grabau of the National University of Peiping, China. These, as well as numerous visitors from American museums, were shown through the Department workrooms, and methods of installation and preparation used at this institution were discussed with them.

Requests from correspondents and visitors for information and identification of specimens were received in even larger numbers than usual. Many visitors to A Century of Progress exposition brought specimens from home to the Museum for identification.

There were 307 correspondents and 441 visitors referred to the Department for these and similar services.

ACCESSIONS—GEOLOGY

Accessions were received during the year from sixty-four sources. Of these, fifty-six were by gift, seven by exchange, one by purchase, and three were collections made by members of the Department Staff. The specimens included in these accessions totaled 1,421.

The most important gift of the year was a collection of fifty-five cut gems brought from the island of Ceylon and presented to the Museum by Prince M. U. M. Salie, Ceylonese gem merchant. The collection includes examples of all the more important precious stones found in Ceylon, and embraces every color through the entire spectrum from red to violet, with colorless varieties as well. Outstanding in beauty and interest are the sapphires, star sapphires, rubies, a star ruby, aquamarines, moonstones, and an oriental amethyst sapphire. The collection is an important addition to the gem collection in H. N. Higinbotham Hall (Hall 31).

Mr. Stephen Varni, of New York, presented a series of specimens illustrating the several stages of cutting a "varnistar" from rock crystal. These stages are, in a general way, the same as those of cutting any faceted gem, but as the star is large, the stages can be better seen than if an ordinary gem were used. As the star is brighter than the crystal from which it is cut, the series has been provided with a label explaining in detail why the brilliancy and fire of a gem is increased by proper cutting.

A cabinet of eight tubes containing rare gases of the atmosphere was the gift of the Air Reduction Sales Company of Chicago. The gases shown are exceedingly rare elements—argon, neon, helium, krypton, and xenon—which are found in the atmosphere only in the most minute quantities. These gases are transparent and invisible in their ordinary state, but can be made to glow brilliantly in characteristic colors when excited by an electric current applied under suitable conditions. In order to permit the gases to be seen they are placed under reduced pressure in tubes which have electrodes for application of an exciting current. The cabinet has been provided with a push button and transformer. When the button is pressed each tube glows with its characteristic color. These tubes also illustrate the phenomenon of fluorescence. Some of the gases are shown in two tubes, one of plain glass and the other of a glass in which

is incorporated a fluorescent substance, so that the glow of the gas excites a brilliantly colored fluorescence in the glass.

The Standard Oil Company (Indiana) presented seventy-four specimens and sixty photographs which present a synopsis of the multitudinous uses of the products of petroleum. This synoptic collection now occupies a large case placed in a prominent position in the central aisle of Hall 36.

The mining industry of Poland is now well represented in the collections as the result of a gift of sixty-one ores and minerals of that country presented by the Polish Institute for Collaboration with Foreign Countries, of Warsaw.

Although the basic plan of A Century of Progress exposition is such as to preclude the possibility of obtaining from it such large accretions to the collections of the Department as came from earlier world's fairs, two accessions of importance have been secured from this source. One is the gem collection presented by Prince M. U. M. Salie, which has been mentioned above. Another is a gift of twenty-seven specimens of ores of Washington presented by the Northwest Mining Association of Spokane, Washington. This represents late aspects of mining in that region, and is important enough to compel a thorough revision of the exhibit of the mineral resources of that state. A number of other collections which were especially desired were secured through the efforts of the Acting Curator, but due to the continuance of the exposition in 1934 they could not be delivered immediately.

A nine-inch cubic crystal of fluorite growing out of a mass of the mineral, which was presented by the Crystal Fluorspar Company, of Elizabethtown, Illinois, forms a welcome addition to the small group of exceptional minerals displayed in individual cases in Hall 34.

Mr. William B. Pitts, of Sunnyvale, California, presented a small collection of agate and opal of more than usual merit. Specimens of the rare native lead from two hitherto unrecorded localities were presented by Mr. Frank Von Drasek, of Cicero, Illinois, and Mr. Robert R. Lipman, of Chicago. Mr. James Manning, of Chicago, contributed an example of placer gold ore from the vicinity of Nome, Alaska, which was unlike specimens already exhibited. The Chisos Mining Company, of Terlingua, Texas, contributed fifteen examples of the mercury ores of that district, which had hitherto been inadequately represented in the collections.

Mr. Darsie A. Green, of Norman, Oklahoma, presented two geodes of an unusual kind not hitherto represented in the collections.

The Houston Museum of Natural History, of Houston, Texas, presented an attractive specimen of pink calcite. A specimen of uranophane and four other minerals from the pegmatite deposits of North Carolina were presented by Mr. Burnham S. Colburn, of Biltmore, North Carolina. Three specimens of two newly discovered species of fossils, one a crustacean, and the other a pteropod, were collected and presented by Mr. Floyd Markham, of Chicago. They are now being named and described by Assistant Curator Roy. A specimen of the rare rock, rhombenporphyry, which is seldom found elsewhere than in Norway was collected at Oslo by Mr. Johan Eriksen of that city and presented to the Museum.

Mr. Fritz Ackermann, of Bahia, Brazil, presented two phantom quartz crystals of unusual excellence. Mr. A. C. Jones, of Cicero, Illinois, contributed four choice specimens of wulfenite and cerussite. Mr. Herbert C. Walther, of Chicago, besides adding a specimen of molybdenum to the rare element collection to which he has so liberally contributed in the past, contributed to the mineral collection specimens of ulexite, trona, and halite. Three sylvites from New Mexico, which were needed additions to the collection of potash minerals from American localities, were presented by Mr. O. J. Dowling, of Carlsbad, New Mexico. A specimen of diaspore, contributed by the A. P. Green Fire Brick Company, of Mexico, Missouri, is an example of a mineral which has become of economic importance in recent years. An interesting specimen, presented by Mr. Frederick Blaschke, of Cold Spring-on-Hudson, New York, consists of gravel mixed with grains of placer gold which had been picked up by a duck and found in the bird's crop.

The principal accretions to the invertebrate fossil collections were the 615 specimens from Assistant Curator Roy's expedition to New Jersey and adjacent states. The full value of this collection cannot be determined until it is worked out, a task which will take some time.

Three fossils from Blue Island, Illinois, represent two new species and are of such interest that descriptions of them have been prepared for publication.

The fifty-one specimens from Assistant Patterson's expedition to Colorado are more valuable than the number would indicate. The three *Titanoides* skeletons provide material for a mount of this large and rare mammal. Researches by members of the Department Staff, based upon these specimens, which are more complete than any before known, have increased knowledge of the nature and relations

of this hitherto almost unknown animal. The lower jaws of a shovel-tusked mastodon from Mongolia were received from the Fourth Asiatic Expedition of the American Museum of Natural History, in which Field Museum cooperated. Mr. James H. Quinn, of Ainsworth, Nebraska, presented eighteen specimens of fossil mammals and one fossil reptile. Other citizens of Ainsworth who contributed are Mr. Leslie K. Quinn, who presented a partial skeleton of a fossil rodent, and Mr. Fred E. Herre, who gave the jaw of a fossil mammal. Another mammal jaw was contributed by Mr. Vergil Deardorff, of Silt, Colorado.

The skeleton of a *Plesippus* was obtained by exchange with the United States National Museum, Washington, D.C., to supplement the growing series of fossil horses. Fifteen barites and four tufas were obtained by exchange with Mr. F. G. McIntosh, of Beverly Hills, California. Three specimens of French bauxite, obtained by exchange with the Salgues Foundation of Brignoles, France, permit a better presentation of the important French aluminum ores.

One hundred twenty-nine fossil plants, including four fossil cones, were obtained through an exchange of duplicates with Dr. Ralph W. Chaney, of the University of California, Berkeley, California, and etched sections of two meteorites were received by exchange from the United States National Museum, Washington, D. C.

Eighteen specimens of meteorites and crater products from the recently discovered meteorite craters of Henbury, Australia, have been received by exchange with the Kyancutta Museum of South Australia, and constitute the most important addition to the meteorite collection since the acquisition of the Ward collection many years ago. The specimens of the meteorite are accompanied by other specimens which show the effects of the terrific heat generated by the impact with the earth of thousands of tons of iron moving at high velocity. Some of the specimens are fragments torn from the iron meteorite while in a plastic state at the moment of impact. Others are rock fused to lava and thrown out of the craters, and silica-glass formed from melted sandstone.

CATALOGUING, INVENTORYING, AND LABELING—GEOLOGY

New entries recorded in the Department catalogues, now comprising twenty-six volumes, totaled 1,421 during 1933. These, added to previous entries, give a total of 191,820.

Preparation of copy for new labels, and for replacing labels on black cards with buff-colored ones, was carried on continuously during the year. A total of 1,215 labels was written and sent to the Division of Printing. In order to afford information regarding the exhibits until the permanent labels are ready, eighty-nine temporary typewritten labels were written and installed. A total of 644 labels was received during the year from the Division of Printing.

The number of photographic prints added to the Department albums was eighteen, bringing the total of such prints to 7,498. Labels for all prints were prepared and filed with them. Ninety-five new United States Geological Survey maps were received, filed, and labeled, making the number of these maps now available 3,848.

INSTALLATIONS AND REARRANGEMENTS—GEOLOGY

The exhibits of the Department were disturbed as little as possible by changes of installation during the period of A Century of Progress exposition because of the influx of visitors to the Museum at that time. Only two changes involving moving or emptying cases were made, and other work of installation was limited as far as was practicable to the opening and closing months of the year when the fair was not in progress.

The collection of fifty-five Ceylonese gems presented during the year by Prince M. U. M. Salie, as mentioned under Accessions (p. 58), was installed in H. N. Higinbotham Hall (Hall 31), the stones being distributed among the collections in their proper places according to their relation to other gems previously exhibited. This new material greatly augments the value and interest of the collections in this hall as a whole.

In Hall 34 three cases, made in the Department workrooms, have been added to the new series of small cases for the prominent display of large, choice minerals which was started by the installation of a single case last year. These cases, which are twenty inches square and forty-six inches high, are glazed on all four sides and conform in style with the other cases in the hall. They are placed against the A-shaped cases of the alcoves facing the aisle so as to provide a prominent position for the fine specimens they contain. A series of twelve such cases is contemplated. The others will be installed from time to time as suitable material becomes available. The cases installed this year contain a large mass of lapis lazuli

from Peru, two tall selenite columnar crystals from Chile (see Plate IX), and a fluorite crystal from Illinois.

Where it has been necessary to install two or more rows of specimens on a wide shelf the view of the rear row is more or less obscured by the specimens in front. To overcome this to a degree a combined block and label holder has been designed which raises the specimen with its label so that it can be seen. The specimens thus raised also serve to break up the rather monotonous flat surface of the back of the case. In many cases the view of small crystals is obscured by the accompanying label unless the label is placed to one side of the specimen, which is undesirable. A small supporting block entirely concealed by the label has been devised to obviate this difficulty. Five hundred and sixty-two blocks of both of these types have been made in the Department and installed in ten cases.

Eighteen specimens of meteorites, and the products of their impact on the earth, from the recently discovered meteorite craters of Henbury, Australia, have been installed in Hall 34 directly opposite the large collection of meteorites from the earlier known and larger meteorite crater at Canyon Diablo, Arizona. This makes the third of the world's five generally recognized craters to be represented in the collections. In addition to the Henbury specimens two other meteorites have been added to the collection.

A group of five specimens showing the process of cutting a crystal star from rock crystal has been added to the collection of forms of gems and cut stones in the same hall. As this collection demonstrates the increase of brilliancy imparted to gems by skillful cutting it has been provided with a label which explains, in detail, the reasons for the increase of fire and brilliancy.

The former exhibit of rare gases of the atmosphere has been withdrawn and replaced by a larger and more efficient collection installed in a different location. The new exhibit consists of five rare gaseous elements from the atmosphere in tubes so arranged that they glow under the passage of an electric current when a button is pressed. It has been installed on the bridge connecting Hall 36 and Frederick J. V. Skiff Hall (Hall 37).

In Hall 36 the collections have been increased by the addition of such specimens as have been received during the year. The collection of liquid products of petroleum which occupied a large case in the center aisle of the hall has been discarded and replaced by an improved collection presented by the Standard Oil Company (Indiana). The new collection is installed on a pyramid in a large

square case with exhibition faces on all four sides. Each specimen is accompanied by a photograph which shows one of its principal uses. As there are thousands of petroleum products it has not been possible to illustrate the subject in detail, but a synoptic collection of seventy specimens has been assembled which shows the great diversity of the products and their uses, and includes many uses unsuspected by the average visitor.

The principal change in Frederick J. V. Skiff Hall (Hall 37) is the replacement of 518 of the old-style black labels by labels of the new type which match the background of the cases. Two of the large gypsum crystals from South America have been removed and reinstalled in an individual case in Hall 34 as an addition to the mineral collection. Additions of specimens received during the year have been made to the collections in seven cases. An example of potash minerals from a mine in the newly discovered field in Texas and New Mexico now supplements the former specimens from this field which were obtained from drill holes. A better specimen of the French bauxite has replaced an unsatisfactory one. The collection of rare elements has been increased by additional gifts from Mr. Herbert C. Walther, of Chicago. Several fluorites of Illinois have been added to the fluorite collection, and specimens have been added to the gold, copper, and nickel collections.

In Ernest R. Graham Hall (Hall 38) a highly interesting and educational group called "Fossil Skeleton in the Earth" (see Plate VIII), prepared by Mr. Phil C. Orr, of the Department Staff, was installed. The specimen is one of the giant sloths, *Scelidotherium bravardi*, from the pampas formation of Argentina, and was collected by the Marshall Field Paleontological Expedition of 1927. It is mounted in the position in which it was found in a sandy clay bed a few feet below the surface. It had been exposed by a small wash which had cut away its banks at high water. A section of the terrane is shown in the background, clumps of pampas grass are used as accessories, and a glimpse of the landscape is shown by a painted background by Mr. Charles A. Corwin, Staff Artist. This group serves well to show how animals are covered over in an alluvial formation, how they are preserved for long periods as fossils, and how they are again brought to light by stream erosion.

Fifteen smaller vertebrate fossils were also installed, as were two descriptive labels, forty-one short labels, and a photograph.

The introduction of new exhibits has led to some changes and regrouping. The two old models of *Plesiosaurus* and *Ichthyosaurus*



ORANG OR ORANG-UTAN, BORNEO

William V. Kelley Hall (Hall 17)

Taxidermy by Carl E. Akeley. Reinstallation by Leon L. Pray

THE LIBRARY
OF THE
UNIVERSITY OF MICHIGAN

have been removed from exhibition. In order to make room for the new group, the skeleton of the Irish deer and the model of the moa have been moved from their former places in the north end of the hall to new positions nearer the center. This has improved the balance of the exhibits.

In the laboratories of vertebrate paleontology preparation of specimens has been continued throughout the year by Mr. J. B. Abbott and Mr. Orr of the Staff. Mr. J. H. Quinn, a skilled preparator, served three months as a volunteer worker. Work in this laboratory included, besides the major task of preparing and mounting the group "Fossil Skeleton in the Earth," the preparation of a number of other fossil mammal specimens. South American fossil mammals prepared and in process are two skulls of *Ancylocoelus*, one skull of *Rhynchippus*, two of *Thoatherium*, three skulls and two jaws of *Equus andium* and the carapace of the large glyptodont, *Panochthus*. Another foreign fossil mammal specimen prepared and mounted is a pair of jaws of the strange shovel-tusked mastodon of Mongolia, *Platybelodon*. North American fossil mammals prepared include a skull and jaws of the rare horned gopher, *Epigaulua hatcheri*, and three skulls and various skeletal parts of the rare and hitherto little-known Paleocene mammal, *Titanoides faberi*.

In the laboratory of invertebrate paleontology five sections of fossils were made, and fifty-one fossils were prepared. Mr. Lawrence Brundell, a student volunteer assistant, worked for two months on the fossils of the Chicago area, performing satisfactory work.

The reserve and study collections of economic geology material, which were originally labeled and arranged in systematic order in trays in Room 120, have for some years been outgrowing the space assigned to them. These collections have been completely reorganized and rearranged. They are now classified geographically and by kinds in trays in such shape that any wanted specimens can be readily found. The utility of the rearrangement has been demonstrated several times during the year when visitors to A Century of Progress came to the Department for the purpose of studying groups of specimens for which room has not been found in the exhibition cases.

A much needed specific gravity balance for the chemical laboratory was built by Department labor and is in regular use. Distilled water has been provided by this laboratory as needed for the James Simpson Theatre, and for the Divisions of Photography and Photogravure.

DEPARTMENT OF ZOOLOGY

EXPEDITIONS AND RESEARCH

Through the timely assistance of several patrons, it was possible to carry out one zoological expedition completely, to get another into the field in November ready to begin work and to organize a third which is scheduled to start in January, 1934. The first of these was the brief but successful Hancock-Wegeforth Expedition to Guadalupe Island for Field Museum; the second was the Leon Mandel Guatemala Expedition of Field Museum; and the third the Straus West African Expedition of Field Museum.

The expedition to Guadalupe Island, off the west coast of Mexico, was conducted during April and May, and was made possible mainly through the cooperation of Captain G. Allan Hancock, of San Francisco, and Dr. Harry M. Wegeforth, President of the Zoological Society of San Diego. Essential assistance was received also from the Emily Crane Chadbourne Fund, and from the Mexican government, which courteously supplied the necessary permission to make collections in its territory. Dr. Wegeforth kindly made preliminary arrangements, and the Museum sent Messrs. Julius Friesser and Frank Wonder, of its taxidermy staff, to Los Angeles, where they were received by Captain Hancock and taken to the island on his scientific cruising ship *Velero III*. The object of the expedition was to secure elephant seals for a habitat group, and in less than two weeks' time this was done. Five fine specimens were obtained, ranging in weight from a small one of 250 pounds to a large bull of some 5,000 pounds. The skins and bones reached the Museum in excellent condition, and preparations for the production of the group were rapidly advanced.

The generous support given by Mr. Leon Mandel, of Chicago, made possible the organization of the expedition to Guatemala, with a personnel and equipment adequate for work in various branches of zoology during a period of five or six months. Assistant Curator Karl P. Schmidt is leader of the party, and his major efforts are being devoted to certain special studies in Central American herpetology. Other members of the party are Mr. Emmet R. Blake, of Pittsburgh, ornithologist; Mr. F. J. W. Schmidt, of Madison, Wisconsin, mammalogist; and Mr. Daniel Clark, of Chicago, general assistant. The expedition sailed from New Orleans November 22, landing at Puerto Barrios a few days later and beginning work at once in tropical rain forests near the coast. One of the immediate results was the securing of material for a habitat

group of a handsome species of toucan, a bird characteristic of the American tropics and well suited to the needs of the projected hall of habitat groups of foreign birds. Specimens, accessories, photographs, and notes for this group, complete in all respects, were brought together and shipped to the Museum within a few weeks. Meanwhile, general collecting was reported as successful, and late in December Mr. Mandel sailed to join the expedition and spend several weeks with it in the highlands of central and western Guatemala. The herpetological studies of Mr. Schmidt during the course of this expedition are provided for under a fellowship granted to him by the John Simon Guggenheim Memorial Foundation of New York. The expedition has had the cordial cooperation of the United Fruit Company and the government of Guatemala, which the Museum gratefully acknowledges.

The Straus West African Expedition, generously financed by Mrs. Oscar Straus of New York, was organized in December, and at the close of the year was in final stages of preparation. Under the leadership of Mr. Rudyerd Boulton, Assistant Curator of Birds, this expedition expects to sail from New York about January 25, 1934, for the port of Dakar, Senegal. Besides Mr. Boulton, and Mrs. Straus herself, who is to accompany the expedition over a considerable part of its route, the personnel will include Mr. Frank C. Wonder of Field Museum's taxidermy staff, who has been assigned to collect mammals; Mr. John F. Jennings, of Chicago, who will go as photographer; and Mrs. Rudyerd Boulton, who will accompany the expedition under a grant from the Carnegie Corporation of New York to study and record primitive tribal music.

Work will be carried on in French West Africa, Nigeria and Angola (Portuguese West Africa). Since the natural history of this region is practically unrepresented in Field Museum, results of much value to the institution are expected.

During the year arrangements were made for the Museum to participate, to a limited extent, in the Antarctic Expedition of Admiral Richard E. Byrd, who accepted a commission to obtain specimens of the emperor penguin for a habitat group.

Seven publications were issued in the Museum's Zoological Series. These consisted of descriptions of recently discovered animals or brief accounts of current research. Included are two papers by Dr. Wilfred H. Osgood, Curator of the Department, on South American rodents; two by Assistant Curator Karl P. Schmidt on Central American reptiles; one by the same author on a new Arabian snake;

one by Assistant Curator Colin C. Sanborn on South American bats; and one by Assistant Curator Alfred C. Weed on the fishes known as halfbeaks. Twenty signed articles by staff members and thirteen unsigned articles and short items were contributed to *Field Museum News*. Data were supplied for twenty-six newspaper articles.

Unpublished zoological manuscripts have accumulated and now include those for Parts VII and VIII of the *Birds of the Americas*, by Associate Curator C. E. Hellmayr; *The Fishes of the Crane Pacific Expedition*, by Dr. A. W. Herre, of Stanford University; *The Mammals of Chile*, by Curator Osgood; *African Reptiles and Amphibians in Field Museum*, by Mr. Arthur Loveridge, Associate Curator of Herpetology in the Museum of Comparative Zoology, Cambridge, Massachusetts; *The Turtles of the Chicago Area*, by Assistant Curator Schmidt; and *Types of Lepidoptera in the Strecker Collection*, by the late William Barnes and Mr. F. H. Benjamin, of the United States National Museum, Washington, D.C.

Research on material from past expeditions was continued so far as possible, but while much of this material is still being prepared, catalogued, and incorporated into the collections, time for research is limited. Moreover, the staff's time for research during 1933 was reduced by the necessity of supplying information or otherwise giving personal attention to the unusual number of visiting scientists attending conventions in Chicago, as well as to the many amateur naturalists who presented themselves among the unusually large attendance during A Century of Progress exposition. Associate Curator Hellmayr, working in Vienna, completed work on Part VIII of the *Birds of the Americas* and proceeded with the preparation of Part IX. Curator Osgood continued studies of South American mammals, especially those from Chile; Assistant Curator Sanborn gave some time to neotropical bats and the literature pertaining to them; Assistant Curator Boulton worked at intervals on certain African finches, flycatchers, and guinea fowl; Assistant Curator Schmidt studied Central American reptiles, especially in their relation to the data gathered during his recent examination of types in European museums; Assistant Curator Weed made some progress in the preparation of a report on the fishes of Aitutaki Island, collected by the Philip M. Chancellor Expedition to the South Pacific; and Assistant Dwight Davis prepared and made preliminary examination of the skeleton of the West African giant frog, a rare species not hitherto studied in detail.



AFRICAN LION

Carl E. Akeley Memorial Hall (Hall 22)

Specimens collected by Mr. and Mrs. Marshall Field. Taxidermy by C. J. Albrecht

THE LIBRARY
OF THE
UNIVERSITY OF ALABAMA

ACCESSIONS—ZOOLOGY

From an average of about 14,000 for the previous eight years, accessions of zoological specimens dropped, in 1933, to 5,147, and of these more than one-fourth were obtained through expeditions which terminated prior to 1933. They are distributed by zoological groups as follows: mammals, 332; birds, 512; amphibians and reptiles, 888; fishes, 1,452; insects, 1,953; lower invertebrates, 10. The number obtained by Museum expeditions and local field work is 1,434; by gift, 3,106; by purchase, 5; and by exchange, 602. The gifts come from a large number of donors, and reflect especially the continued interest and cooperation of local naturalists.

Mr. C. Suydam Cutting, of New York, from whom the Museum has previously received much valuable material, presented an interesting collection obtained by Captain F. Kingdon Ward and Lord Cranbrook in northwestern Burma. This comprised 133 mammals and seventy birds. Among the mammals are various species previously unrepresented in the Museum, and among the birds are paratypes of three new forms. A pair of Kuzer's blood pheasant in this collection also is notable. Twenty-two small mammals from the provinces of Kweichow and Kwangsi, China, were presented by the Metropolitan Museum of Natural History, of Nanking, China. Other gifts of mammals are recorded in the List of Accessions (p. 94).

Mr. and Mrs. John P. Kellogg, of Chicago, gave 117 African birdskins collected by themselves in Kenya and Tanganyika. Included are specimens from the little-visited Ngorongoro Crater, which are especially interesting. Other accessions of birds were largely from local sources, and a considerable number were received in fresh condition for preparation as skeletons.

The Walker Museum, of the University of Chicago, presented twenty-six amphibians and reptiles from the Galapagos Islands, supplementing the valuable series from the same islands given in 1932. Mr. P. M. Miles, of St. Louis, Missouri, generously gave a skeleton of the large Komodo Island lizard, an acquisition which will greatly facilitate a study of this interesting animal. A further much appreciated gift of amphibians and reptiles consists of 158 specimens from Chile, received from Mr. Dillman S. Bullock, of Angol, Chile.

The John G. Shedd Aquarium has continued its cooperation with Field Museum by presenting many specimens of fishes from its expeditions and its surplus. A total of 257 fishes, many of them

extremely interesting, were received from this source. Among them were at least ten species new to the Museum and others of much value for its reference collection. Mr. Stewart Springer, director of the Caribbean Biological Laboratories, Biloxi, Mississippi, presented forty-five fishes from the Gulf of Mexico, and through his recommendation another lot of 105 specimens from the same region was received from Mr. John Daily, of Indianapolis, Indiana. Dr. E. Milby Burton, director of the Charleston Museum, Charleston, South Carolina, has sent three lots of pickerel collected by himself in that state as gifts from the Charleston Museum. These have an important bearing on studies which are under way on the distribution and classification of the smaller pickerels of North America. Gifts of brook trout from Mr. Phil G. Zalsman, of Grayling, Michigan, have provided material for exhibits to show the color changes in this species.

The most noteworthy gift of insects was a series of 402 specimens from Mindanao, Philippine Islands, collected and presented by Mr. L. H. Phillips, of Patterson, California. This was of especial interest since it contained a number of attractive and unusually large species hitherto quite unrepresented in the Museum. A further desirable gift of insects consisting of 260 specimens, mainly beetles, was received from Mr. Emil Liljeblad, of Chicago. Mr. Edward Brundage, Jr., of Lake Forest, Illinois, gave 231 insects of various orders found in the United States.

CATALOGUING, INVENTORYING, AND LABELING—ZOOLOGY

Catalogue entries were made for 7,033 zoological specimens. Of these 1,747 were mammals, 1,594 birds, 1,110 reptiles and amphibians, and 2,582 fishes. Labels for 3,000 skins of mammals were written and attached. A total of 479 skulls also received numbers and labels. Rearrangement and relabeling of mammals in alcohol was begun, and details connected with the incorporation into the permanent collections of recent large accessions of mammals were carried on at a high rate. The arrangement of the reference collection of birds received much attention, and various segregated collections were organized so as to be at least temporarily accessible. The types of birds, numbering 289, were segregated from the general collection and placed in a special case. The J. Grafton Parker collection of North American birds, which had suffered from exposure to dust before being presented to the Museum several years ago, was thoroughly cleaned and renovated by Mr. Donald Hirsch, who

acted as volunteer assistant in the Division of Birds during the summer months.

Plans were perfected for the increase of storage space for the reference collections of mammals and birds by combining the storage rooms into one, with only an open aisle between the rows of cabinets containing the collections. Removal of walls and remodeling for this purpose were actively under way in December. This will result in improved light and accessibility, as well as an increase of space amounting to nearly 80 per cent. Sixteen steel storage cases for these collections were received early in the year, and in December delivery of twenty-four additional ones was in progress. The usual routine was continued in caring for collections of reptiles, amphibians, and fishes. Of the 1,699 insects prepared for incorporation in the collection, 1,297 were pinned and labeled. Name labels were written for 368 specimens rearranged in new drawers. In continuation of the permanent improvement of the collection, nine drawers of North American beetles, including aquatic species and carrion feeders, were identified and arranged in new containers.

In the Division of Osteology much progress was made in arranging and systematizing the collections. Card indexes were completed for all skeletons of mammals and birds, and so far as possible the material was classified and arranged in systematic order. A survey of the collection of mammal skeletons, now possible for the first time, reveals that eighty-six families, 279 genera, and 360 species are represented by the 536 specimens in the collection. Twelve skeletons of large mammals were cleaned by maceration in the macerating room. About one hundred skeletons of small birds and mammals were cleaned by dermestids in the same room. Miscellaneous skulls of mammals, numbering about 400, were also cleaned. Seven skeletons were mounted, and various others were cleaned and adapted for exhibition use.

As in former years, considerable assistance was received from volunteer workers and students, especially during the summer months. Mr. Donald Hirsch and Miss Jacolyn Fox assisted in the Division of Birds, Mr. Walter Necker in the Division of Reptiles, and Mr. Robert Allen in the Division of Mammals.

Routine work of the Department was greatly advanced through the assistance received in the latter part of the year from workers assigned to the Museum by the Illinois Emergency Relief Commission and the federal Civil Works Service. These men and women performed such work as cataloguing and numbering of

mammal, bird and fish specimens, indexing, cleaning of skulls, and various copying tasks on the typewriter.

Cooperation with other museums through the exchange of loans was carried on at a somewhat higher rate than usual. A total of 2,272 specimens was loaned to other institutions during the year, and 1,699 were borrowed.

INSTALLATIONS AND REARRANGEMENTS—ZOOLOGY

The preparation and installation of new zoological exhibits were continued at scarcely less than the highly productive rate of recent years. Four large habitat groups of mammals were completed and opened to the public. The subjects were the African lion, the gaur or seladang, the manatee, and the orang. A group of bower birds was prepared and placed in Stanley Field Hall. Two cases of mammals were added to systematic exhibits in Hall 15, and six screens of birds, equivalent to three full cases, were added in Hall 21. Large numbers of fishes and certain reptiles were prepared, but most of these were awaiting installation at the close of the year.

The lion group (see Plate XI), occupying a prominent position in Carl E. Akeley Memorial Hall (Hall 22), is one of the results of the trip which Mr. and Mrs. Marshall Field made by air to central Africa in 1930. It includes a large male lion shot by Mr. Field, an equally fine lioness shot by Mrs. Field, and four small kittens. The male stands at attention on a commanding and rocky eminence, the female, with her kittens gathered between her paws, lies peacefully below. The rocky setting faithfully represents the well-known habitat of lions in the Serengetti Plains of Tanganyika. The group is impressive, characteristic of the animals, and notable for the effective simplicity of its composition. It was designed and prepared by Staff Taxidermist C. J. Albrecht.

The great gaur ox of Asia, otherwise known as the seladang, is represented by three animals grouped in a forest setting in William V. Kelley Hall (Hall 17). This species, which is perhaps the finest of all wild oxen, is richly colored and striking in appearance. A large bull is shown emerging from thick forest into a grassy opening where a cow and calf stand at ease in calm, bovine unconcern. Specimens for this group are all from Indo-China, but were received from three sources. The large bull fell to the rifle of Colonel Theodore Roosevelt while leader of the William V. Kelley-Roosevelts Expedition to Eastern Asia for Field Museum in 1928-29. The cow was presented by the late Charles Rydell, of Superior, Wisconsin, and

the young calf was especially collected and presented for the group by Messrs. George F. Ryan and George G. Carey, Jr., of Baltimore. The taxidermy is by Messrs. Julius Friesser and Arthur G. Rueckert of the Museum staff. The background was painted by Staff Artist Charles A. Corwin.

A group of oranges (see Plate X), to some extent a reinstallation, but in actual effect practically a new exhibit, was also given a place in William V. Kelley Hall. The animals for this group were mounted many years ago by the late Carl E. Akeley, but their installation in a square floor case was unsuitable for the Museum's present building. Therefore, the group was completely rearranged and adapted to a new setting in a built-in case with a painted background. This required the construction of an entire tree-top scene in a tropical forest which was very successfully carried out by Staff Taxidermist Leon L. Pray.

A group of the Florida manatee or sea cow provided an important addition to the Hall of Marine Mammals (Hall N). Specimens for this purpose were obtained in fresh, natural condition through the cooperation of the John G. Shedd Aquarium. Two animals are shown in an under-water setting, one in semi-upright and the other in horizontal position. Both are engaged in feeding on water plants. The animals are reproduced in celluloid-like material in which details of skin texture and exact shades of color are perfectly preserved. The group was produced by Staff Taxidermist Leon L. Walters, assisted by Mr. E. G. Laybourne. The background was painted by Mr. Pray.

In the systematic exhibits of mammals in Hall 15, variations and additions were made. A case of dogs and wolves was reinstalled to include most of the important species of the family Canidae except the foxes. Another case was completed, displaying the interesting order of edentate mammals, the sloths, anteaters, aardvark, armadillos, and pangolins. Due to the many valuable accessions from recent expeditions, it was possible to prepare a practically complete series of these animals. The rather difficult taxidermy is mainly by Taxidermist Rueckert assisted by Mr. Frank C. Wonder. A further notable addition in Hall 15 was a single orang installed in its appropriate place among the other manlike apes. This was prepared by Taxidermist Walters, who used the so-called "celluloid" method. It is the first large hairy mammal to be treated in this way and is exceedingly successful. The reproduction was cast from a fresh specimen, and by a somewhat intricate process the skin was replaced

in all naturalness by the celluloid-like composition in which the hair is embedded exactly as it was in the original skin.

To the exhibit of horned and hooped mammals in George M. Pullman Hall (Hall 13) there was added a huge and excellent specimen of American bison bull. The animal, which weighed about 2,300 pounds when alive, had belonged to the herd on the American Ranch at Twodot, Montana, and was presented to the Museum by Colonel Wallis Huidekoper, owner of the ranch. The specimen was mounted by Taxidermist Friesser.

A small habitat group of the fawn-breasted bower bird of New Guinea was prepared by Assistant Taxidermist John W. Moyer and installed in Stanley Field Hall. The birds are shown occupied in their extraordinary courtship display, with the "bower" and complete accessories, which were carefully collected for the purpose by the Cornelius Crane Pacific Expedition of Field Museum (1928-29). Five screens of North American birds were prepared by Staff Taxidermist Ashley Hine and installed in the systematic series in Hall 21. One of these is devoted to herons, ibises, and storks; two others (reinstallations) show rails and shore-birds; and two show small passerine birds, including flycatchers, swallows, jays, creepers, wrens, mockingbirds, and allies. For the foreign series a screen showing the birds of paradise and their relatives was prepared by Mr. Moyer.

Interesting and beautiful celluloid models of two species of angler-fishes and of the peculiar sargassum fish were produced by Taxidermist Rueckert, and placed on exhibition in Albert W. Harris Hall (Hall 18). The specimens used were presented by the John G. Shedd Aquarium which also provided facilities for observing the colors and actions of the species in life. Further fishes in large numbers were completed by Taxidermist Pray, but installation was delayed for the coming year. These are mainly very bright-colored tropical fishes collected by the Crane Pacific Expedition and the Field Museum-Williamson Undersea Expedition to the Bahamas (1929).

Important installations and reinstallations of skeleton exhibits were made in Hall 19, devoted to osteology, by Assistant Curator Edmond N. Gueret and his assistant, Mr. D. Dwight Davis.

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION

At the end of the year the Department of the N. W. Harris Public School Extension had 1,200 traveling exhibition cases of natural history and economic subjects available for loaning to

Chicago's 333 public schools and forty-one branch schools, with an enrollment of 492,670 children. To these schools bi-weekly distribution of two cases each was maintained throughout the scholastic year and, in addition, the University High School of the University of Chicago, thirty-seven parochial and private schools, seven branches of the Y.M.C.A., nine branches of the Chicago Public Library, two Boys' Union League Clubs, and four social settlements were given the same scheduled service. To deliver and collect the 868 cases loaned to these 434 various schools and other institutions, it was necessary for the Museum's two trucks to travel a distance of 9,947 miles.

During the year requests from several organizations were received and granted for the loan of cases. Twelve cases were shown at a session of the annual convention of the American Association of Museums, which was held in the Museum's small lecture hall. Eighteen cases of insects, birds, and wild flowers were loaned to A Century of Progress exposition, where they were exhibited in the Hall of Science. At the request of the superintendent of the United Charities of Chicago, twelve cases were sent to Camp Algonquin. Eighteen cases of birds and reproductions of wild flowers were placed on display in the book section of Marshall Field and Company, and fifteen cases were shown in a special booth at the International Live Stock Show in the Union Stock Yards.

Eight cases, all duplicates, were permanently withdrawn from circulation. Twenty-five new cases were installed, and sixteen others are in process of construction. Two of the new cases prepared by Department Taxidermist A. J. Franzen contain an instructive display of cellulose-acetate reproductions of seven species of salamanders found near Chicago.

The activities of the members of the Department Staff were to a great degree devoted to the repairing of 209 cases. The fact that many of them have been in constant use for a score of years renders it necessary to give a great amount of attention to their maintenance. Forty-three cases were completely reinstalled, some with curved tinted photographic backgrounds and new accessories. This work consumed as much time as the preparation of new cases. The time-curved wax leaves of more than one hundred older exhibits were restored to their original shape by a method devised in the Department. This method was also used in giving to celluloid leaves and flower parts their natural curve and form.

The black labels of 916 cases were replaced with standardized buff labels, and copy was written or revised for 207 subjects. The work of reinforcing the corners of case label frames was completed. To facilitate the delivery of the cases to the schools, all damaged cases are now returned to the laboratories of the Department for necessary repairs. All the cases were inspected, cleaned, and polished during the year.

Hundreds of letters were received from principals, teachers, students, and others, expressing their appreciation of the service rendered by the Department.

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

The James Nelson and Anna Louise Raymond Foundation has again provided lectures and entertainments for children at the Museum and in the schools. While the work in the schools has continued as in the past, the financial situation has greatly curtailed the number of school groups visiting the Museum for the purpose of classwork in the exhibition halls.

ENTERTAINMENTS FOR CHILDREN

Two series of entertainments were offered, one in the spring and the other in the autumn. Both were presented on Saturday mornings in the James Simpson Theatre. The programs given were:

SPRING COURSE

- February 25—Elephants at Work and Play; Behind the Weatherman; The Muskrat and the Fox.
- March 4—A Beaver and His Indian Friend; The Declaration of Independence.*
- March 11—Fathoms Deep; Queen of the Waves; Cotton—From Seed to Cloth.
- March 18—The Coyote Family; From Tree to Newspaper.
- March 25—Porcupines, Bears and Badgers; Buried Sunshine.
- April 1—The Tortoise and His Cousins; The Frontier Woman.*
- April 8—The Rhino Meets an Automobile; A Dyak Wedding; A Trip through Yellowstone Park.
- April 15—Among the Elephant Seals; A Trip to Banana Land; The Garden of the East; A Borneo Venice.
- April 22—A Trip to Penguin Land; Peter Stuyvesant.*
- April 29—From Egg to Butterfly; Flower Friends of Brook and Roadside; Wild Wings.

AUTUMN COURSE

- October 7—Hawaii, the Beautiful; Kilauea, the Volcano; Earthquakes; White-tail, the Deer.
- October 14—Heroes of the Sea; Columbus.*

* Gift to the Museum from the late Mr. Chauncey Keep.

LIBRARY OF THE U. S. NATIONAL MUSEUM, WASHINGTON, D. C.

BALDPATE

The Baldpate, a member of the Grebe family, is a small, aquatic bird, with a white forehead and a black cap. It is found in the Great Lakes region, and is a common sight in the summer months. The Baldpate is a very hardy bird, and is able to survive in the coldest of climates. It is a very good swimmer, and is able to dive to a depth of 100 feet. The Baldpate is a very useful bird, and is a great help to the farmer. It is a very good pest controller, and is able to destroy many of the insects that are harmful to the crops. The Baldpate is a very beautiful bird, and is a great pleasure to see. It is a very hardy bird, and is able to survive in the coldest of climates. It is a very good swimmer, and is able to dive to a depth of 100 feet. The Baldpate is a very useful bird, and is a great help to the farmer. It is a very good pest controller, and is able to destroy many of the insects that are harmful to the crops. The Baldpate is a very beautiful bird, and is a great pleasure to see.

No. 2189



LIBRARY OF THE U. S. NATIONAL MUSEUM, WASHINGTON, D. C.

LIBRARY OF THE U. S. NATIONAL MUSEUM, WASHINGTON, D. C.

BALDPATE

The Baldpate, a member of the Grebe family, is a small, aquatic bird, with a white forehead and a black cap. It is found in the Great Lakes region, and is a common sight in the summer months. The Baldpate is a very hardy bird, and is able to survive in the coldest of climates. It is a very good swimmer, and is able to dive to a depth of 100 feet. The Baldpate is a very useful bird, and is a great help to the farmer. It is a very good pest controller, and is able to destroy many of the insects that are harmful to the crops. The Baldpate is a very beautiful bird, and is a great pleasure to see. It is a very hardy bird, and is able to survive in the coldest of climates. It is a very good swimmer, and is able to dive to a depth of 100 feet. The Baldpate is a very useful bird, and is a great help to the farmer. It is a very good pest controller, and is able to destroy many of the insects that are harmful to the crops. The Baldpate is a very beautiful bird, and is a great pleasure to see.

No. 2189

TYPE OF CASE 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 CALIFORNIA

October 21—Animals in Motion; Glimpses of Tibetan Life; Strange Tibetan Dances; Moose—King of the Forest.

October 28—Simba.

November 4—Hunting Dinosaurs; The Romance of Glass.

November 11—The Frog; The Ants' Cow; The Mystery Box; From Dog to Airplane.

November 18—Musk Ox and Polar Bear; The Sky Splitter; Comets and Eclipses.

November 25—A Furry Tale; The Puritans.*

December 2—Through the Year with Animal Friends: Spring; Summer; Autumn; Winter.

* Gift to the Museum from the late Mr. Chauncey Keep.

In addition to the two regular courses of entertainments, three special programs were offered during February and September as follows:

February 11—Lincoln's Birthday Program: My Father; Call to Arms.

February 22—Washington's Birthday Program: Gateway to the West; Shrines of American History.

September 30—Program by Indians from the American Indian Villages at A Century of Progress.

Twenty-two programs in all were offered free to the children of the city and suburbs during the year. The total attendance at these entertainments was 25,950, of which 14,237 came to the spring course, 6,296 to the autumn course, and 5,417 to the special programs.

The following newspapers gave publicity to the programs: *Chicago Daily News*, *Chicago Tribune*, *Chicago Herald and Examiner*, *Chicago Evening American*, and *Chicago Daily Illustrated Times*.

An expression of appreciation for films loaned for the programs is due to the United States Department of Agriculture, the General Electric Company, the Department of the Interior of Canada, the United Fruit Company, the Films of Commerce Corporation, the Philadelphia and Reading Coal and Iron Company, the Michigan Department of Conservation, the Chicago, Milwaukee, St. Paul and Pacific Railway Company, the National Museum of Canada, and the Atlas Educational Film Company. Acknowledgment is due also to the American Indian Villages at A Century of Progress exposition for making possible presentation of the program by Indians on September 30.

MUSEUM STORIES FOR CHILDREN—RAYMOND FOUNDATION

Two series of Museum Stories for Children were written by members of the Raymond Foundation staff. These were published and copies were handed to all in attendance at the entertainments.

A comparison of the following subjects and the films presented at the entertainments will show how they are correlated:

Series XX—Reynard the Fox; Beavers as Engineers; Crabs; Spruce Trees; The American Porcupine; The Secretary Bird; Yellowstone Park; Pollen and Nectar Carriers; Penguins; The Flight of Birds.

Series XXI—Interesting Indian Blankets; The Hawaiian Islands; Why Columbus Sailed West; In the Land of the Tibetans; Gnus; Glass, Natural and Artificial; The Aphids; Musk-Oxen; Kangaroos; Hibernation.

A total of 25,000 copies of Museum Stories for Children was distributed during the year.

LECTURE TOURS FOR CHILDREN—RAYMOND FOUNDATION

Classwork in the exhibition halls has been extended to the following groups:

	Number of groups	Attendance
Tours for children of Chicago schools		
Chicago public schools.....	111	4,497
Chicago parochial schools.....	13	659
Chicago private schools.....	13	202
Tours for children of suburban schools		
Suburban public schools.....	92	3,480
Suburban parochial schools.....	5	227
Suburban private schools.....	10	180
Tours for special groups from clubs and other organizations.....		
	40	2,225

In all, 284 groups were given guide-lecture service and the attendance was 11,470.

In the first week of December, the Museum was host to 788 boys and girls who were in the city as delegates to the Annual Congress of 4H Clubs of the United States. The boys lunched in the cafeteria, and both groups were given special lectures in the halls devoted to animal life, prehistoric plants and animals, and the Hall of the Stone Age of the Old World. That the visit to the Museum was an outstanding feature of the congress has been evidenced by the great number of letters received since the boys and girls returned to their homes.

EXTENSION LECTURES—RAYMOND FOUNDATION

Extension lectures were offered to the schools as in previous years. The following subjects were offered to both high schools and elementary schools and were presented in classrooms and assemblies:

FOR GEOGRAPHY AND HISTORY GROUPS

South America; North American Indians; Glimpses of Chinese Life; Native Life in the Philippines; The Romans; The Egyptians; Migisi, the Indian Lad.

FOR SCIENCE GROUPS

Field Museum and Its Work; Prehistoric Life; Insects and Reptiles; Coal and Iron; Coffee, Chocolate and Tea; A Trip to Banana Land; Food Fishes of the World; 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 total number of extension lectures given by the staff of the Raymond Foundation was 423, and the total attendance was 160,750.

NATURE STUDY COURSE—RAYMOND FOUNDATION

At the request of the Chicago Council of Boy Scouts of America, two lectures on natural history topics were arranged for scoutmasters. At each lecture a member of the Raymond Foundation staff presented natural history material which would be of assistance to leaders of scout groups. The subjects offered were:

May 13—Wild Flowers and Insects

May 20—Birds of the Chicago Area

RADIO BROADCASTING—RAYMOND FOUNDATION

Radio broadcasts by the Raymond Foundation staff were given in connection with the school radio programs of Station WMAQ as long as the series was offered. From January to the end of the spring semester, fourteen talks were presented to the lower grades in the elementary schools. The talks correlated with the course of nature study being used in those grades.

ACCESSIONS—RAYMOND FOUNDATION

The Raymond Foundation acquired during the year, for use in the Theatre, a number of slides made by the Division of Photography.

The Raymond Foundation was also the beneficiary of the following acquisitions: eight motion picture reels, *Tibetan Dances*, presented to the Museum by Dr. Wilhelm Filchner, of Berlin, Germany; two reels and several hundred feet of extra strips on *India*, presented by Mr. Arthur S. Vernay, of New York; seven reels, *Simba*, presented by The American Museum of Natural History, New York; sixteen reels of film and 148 slides of racial types presented by Miss Malvina Hoffman, of New York; 150 feet of film on *Elephant Seals* purchased from Mr. W. Charles Swett, of Hollywood, California, and 108 slides on Kish presented by Mr. Henry Field, of Chicago.

The film library of Field Museum now contains 164 reels of 35-millimeter film, 26 reels of 16-millimeter film and 27,700 feet of negatives secured by various staff members while on expeditions.

LECTURE TOURS AND MEETINGS FOR ADULTS—RAYMOND FOUNDATION

As in previous years, the services of Museum guide-lecturers were offered, without charge, to clubs, colleges, conventions and other organizations, and to Museum visitors in general. Special tours were offered during the months of July and August for the benefit of visitors to A Century of Progress exposition. Printed monthly tour schedules were placed at the main entrance for the use of visitors, and were distributed also through libraries and other civic centers of the city and suburbs. During the year, 150 general tours and 190 tours covering specific subjects were offered to the public. The adult groups which took advantage of these lecture tours numbered 337, with a total attendance of 11,340 individuals. Besides the regular public tours, special lectures were given to eighty-five groups from colleges, clubs and other organizations, and these were attended by 2,072 persons.

The use of the small lecture hall was extended to Chicago Boy Scout masters for two lectures, to the Izaak Walton League for three meetings, to the Association of American Museums for one meeting, to the American Association for the Advancement of Science for five meetings, and to the Society for Research on Meteorites for three meetings. Total attendance at these meetings was 1,284. Of those who attended, 597 were concerned with children's activities, and 687 with adult activities.

The James Simpson Theatre was used for four meetings of the American Association for the Advancement of Science, attended by 649 persons, and for the graduating exercises of foreign adults who had been studying in the public schools of the city. The attendance at the latter was 682. Total attendance 1,331.

SUMMARY OF ATTENDANCE AT ENTERTAINMENTS, LECTURES,
TOURS, ETC.—RAYMOND FOUNDATION

The total number of groups reached through the activities of the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures was 1,156, and the aggregate attendance included in these groups numbered 212,179 individuals.

LECTURES FOR ADULTS

The Museum's fifty-ninth and sixtieth courses of free lectures for the public were given in the James Simpson Theatre on Saturday afternoons during the spring and autumn months. They were

illustrated by motion pictures and stereopticon slides. Following are the programs of both courses:

FIFTY-NINTH FREE LECTURE COURSE

- March 4—What I Have Discovered in the Arctic and Antarctic (by Dog Team, Airplane and Submarine).
Captain Sir Hubert Wilkins, F.R.G.S., New York.
- March 11—Jungle Trails of the Congo.
Colonel Charles Wellington Furlong, F.R.G.S., Cohasset, Massachusetts.
- March 18—Around the Globe in the *Camargo*.
Mr. Amos O. Burg, Portland, Oregon.
- March 25—The Tarahumara Indians—the Cave Dwellers of Northern Mexico.
Mr. Robert M. Zingg, University of Chicago.
- April 1—Land o' Peaks and Sky Blue Waters.
Mr. Fred Payne Clatworthy, Estes Park, Colorado.
- April 8—The Canadian Arctic and Its People.
Mr. Richard Finnie, F.R.G.S., Ottawa, Canada.
- April 15—Hunting Whales.
Mr. Chester Scott Howland, New Bedford, Massachusetts.
- April 22—The Utah Fairyland of Bryce Canyon National Park.
Dr. C. O. Schneider, Chicago.
- April 29—Jungle Gods.
Captain Carl von Hoffman, New York.

SIXTIETH FREE LECTURE COURSE

- October 7—The Desert Road to Turkistan.
Mr. Owen Lattimore, Washington, D.C.
- October 14—Jungle Islands of the South Seas.
Mr. Sidney Shurcliff, Boston, Massachusetts.
- October 21—Meshie, the Child of a Chimpanzee.
Mr. Harry C. Raven, American Museum of Natural History, New York.
- October 28—My Life as an Indian Chief.
Mr. Walter McClintock, Pittsburgh, Pennsylvania.
- November 4—The Spell of Egypt.
Mr. H. C. Ostrander, Jersey City, New Jersey.
- November 11—Republics in the Clouds—Ecuador, Peru, Bolivia.
Major James C. Sawders, Nutley, New Jersey.
- November 18—By Way of Cape Horn.
Mr. Alan J. Villiers, Melbourne, Australia.
- November 25—Amazon Twilight.
Mr. Earl Hanson, Carnegie Institution, Washington, D.C.

The total attendance at these seventeen lectures was 22,202; 11,858 for the spring course, and 10,344 for the autumn course.

A special program for adults, given on May 6, at which *The Maori as He Was*, an official motion picture made under the auspices of the Commonwealth of New Zealand, was shown to 585 persons, brought the total attendance at adult programs to 22,787.

SUMMARY OF ATTENDANCE AT LECTURES, ETC.

The total number of groups receiving instruction or other services from the Museum during the year was 1,188, including an aggregate attendance of 236,984 individuals. These figures include the 1,156

groups and 212,179 individuals reached through the activities of the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures, as well as the 22,787 persons attending the seventeen lectures and the special motion picture program provided by the Museum for adults, and 2,018 persons attending the various meetings of outside organizations to which the use of the James Simpson Theatre and the small lecture hall was made available.

LIBRARY

In common with other libraries, the Museum's Library has felt the effects of the general economic depression in two ways. Necessarily, purchases of books have been restricted, and the periodical list has been cut. On the other hand, the Library's service to the public has increased. Many persons out of employment have been using their unoccupied time for studies, in which they have taken advantage of the facilities offered by libraries in general, including the one in the Museum. In some cases such study has been undertaken with the objective of being better prepared for their work when they resume it; in others, it has been purely cultural study.

The number of readers in the Library has been increasing each year, partly because more people are learning that this Library is for the use of the public in general, and partly because the books supplement those found in other libraries. During the winter and spring many students from universities came to find additional material for papers and theses. During the summer some of the visitors to A Century of Progress exposition took the opportunity to consult books in the Library. The meeting of the American Library Association brought to Chicago librarians from all parts of the country, and also from abroad, many of whom were interested in the Museum Library's work.

A very important and helpful change was made in the Library during the year. For several years past the shelves had been so crowded that it was difficult to keep the books even approximately in order. Early in 1933 additional space was provided, and stacks were erected in it. This made it possible to bring from the ground floor many books which had not been on the shelves since the Museum moved into the present building. Also, other books which had been temporarily in one of the departmental libraries were brought back to the general Library and placed on the shelves. This gave opportunity for a complete rearrangement of the general Library which has added materially to the ease and convenience with

which the books are handled. Following this, the books in the anthropological library were cleaned and completely rearranged, making available much needed additional space.

During the year cataloguing of the archaeological papers collected by Assistant Curator Henry Field, on his archaeological expedition to Europe in 1931, has been completed. This collection includes much material that will be of increasing value in coming years and the cataloguing, involving the writing of some 3,000 cards, adds vastly to its usefulness.

The Library depends for its growth chiefly on its exchanges, and in this year, when purchases were so limited, these have been even more essential than normally. Because they include so much material regarding the work carried on in other institutions they are most welcome additions. Several new exchange agreements were effected and as a result considerable material of value and usefulness has been added to the Library. Some exchanges have also been made with members of the Museum staff whereby many useful books have been obtained.

It was found necessary to curtail seriously the number of periodicals previously received. This drastic cut, and the lack of recent books, has been much felt by members of the scientific staff requiring certain reference material in their work. Several staff members have assisted in relieving this situation by subscribing to some of the periodicals so that there would be no break in the files, and also by presenting many books which were needed.

The Library has been favored by the receipt of other gifts which will add to the working value of the collection. A fund of \$450 contributed in 1932 by the American Friends of China, Chicago, was used in 1933 for the purchase of books to supplement the literature already available on China. The books acquired with this money have been carefully selected with a view to their usefulness. A special bookplate was made for them so that they may always be distinguished as the gift of this society.

The Library was also enriched by the gift from Mrs. Robert E. Ross, Mrs. Joseph H. King, and Mrs. William E. Pratt, all of Chicago, of a copy of *Oriental Ceramic Art*, illustrated by examples from the collection of William Thompson Walters, in Baltimore, Maryland. Mr. Walters, who was art commissioner to the Paris Expositions in 1867 and 1878, and to the Vienna Exposition in 1873, made a remarkable collection of French and Chinese art, which was later increased by his son. The catalogue of this collection, now presented to the

Library, is a rare work, published in 1897, and consists of ten beautifully bound volumes in five portfolios, containing many fine illustrations. The plates, 116 in colors, and more than 400 in black and white, show exquisite workmanship. The text was written by S. W. Bushell. A limited edition of only 500 copies of this work was published, and Field Museum is fortunate in becoming the possessor of this set.

Among other gifts of the year may be mentioned the following: Volumes 9 and 10 of *Obras completas*, presented by Direccion de las obras completas de Ameghino, of Rio de Janeiro, Brazil; *Les peintures rupestres schématiques de la péninsule ibérique*, in two volumes, received from Abbé Henri Breuil, of Paris; *Three Kingdoms of Indo-China*, relating to the William V. Kelley-Roosevelts Expedition to Eastern Asia for Field Museum, and given by the authors, Mr. Harold Coolidge, of Boston, and Colonel Theodore Roosevelt, of New York; *L'homme, races et coutumes*, as well as Volumes 14, 16, and 29 of the *Memoirs of the Egypt Exploration Fund*, and Volume 85 of the publications of the Palaeontographical Society, presented by Mr. Henry Field, of Chicago; Volume 1 of *Natural History of Central Asia*, and current numbers of *The Illustrated London News*, presented by Mr. Stanley Field, President of the Museum; and *Flora Micronesica*, received from Mr. Ryozo Kanehira, of Sukuoka, Japan.

The work of Miss Malvina Hoffman in Chauncey Keep Memorial Hall, devoted to the races of mankind, has been outlined elsewhere in this Report. In connection with her preparatory travels and studies Miss Hoffman necessarily accumulated a number of books dealing with physical anthropology. These have now become the property of the Library and they are a distinct addition to the Library's material on this subject.

During 1933 there were accessioned 1,950 books and pamphlets. To the catalogues there were added 11,175 cards, bringing the total number of catalogue cards written to 422,854. From the John Crerar Library 6,176 cards were received and filed.

To the Library's record books, now occupying seventeen volumes, there were added 1,950 entries, making the total number of entries 84,475.

As in previous years, the Library takes pleasure in acknowledging the courtesy of other libraries in lending books that were needed in work here. Among those that have thus assisted should be mentioned the Library of Congress, Washington, D.C.; John Crerar Library, Chicago; the University of Chicago; the Museum of Com-

parative Zoology of Harvard University, Cambridge, Massachusetts; the Boston Public Library; the American Museum of Natural History, New York; the New York Public Library.

DIVISION OF PRINTING

During the early part of the year the Division of Printing was engaged chiefly in the printing of exhibition labels for the Departments, the total number being 20,804. Miscellaneous work for the year totaled 460,597 impressions. Because of an unusual demand for guides, handbooks, leaflets and post cards, the Division, during the latter part of the year, devoted most of its time to this work.

In the regular Museum publication series eleven new numbers were issued, of which one was anthropological, two geological, seven zoological, and one the *Annual Report of the Director* for 1932. Of these a total of 13,737 copies was printed. The aggregate number of pages of type composition was 576. Two indexes for completed volumes, one botanical and one geological, totaling thirty pages of composition, were issued. Of these 1,621 copies were produced.

A new edition of the *General Guide* to Field Museum's exhibits, two new editions of the *Handbook* of Field Museum, two anthropological leaflets, two geological leaflets, and a reprint of an anthropological leaflet, were issued. These booklets represent a total of 474 pages of composition, and production of them was 32,074 copies.

Following is a list of the various publications:

PUBLICATION SERIES

- 317.—Anthropological Series, Vol. XXII. The Tanala, a Hill Tribe of Madagascar. By Ralph Linton. March 22, 1933. 334 pages, 35 text-figures. Edition 632.
- 318.—Report Series, Vol. IX, No. 2. Annual Report of the Director for the Year 1932. January, 1933. 142 pages, 9 photogravures. Edition 5,905.
- 319.—Zoological Series, Vol. XX, pages 1-8. The South American Mice Referred to *Microryzomys* and *Thallomyscus*. By Wilfred H. Osgood. December 11, 1933. 8 pages. Edition 800.
- 320.—Zoological Series, Vol. XX, pages 9-10. A New Snake from Arabia. By Karl P. Schmidt. December 11, 1933. 2 pages. Edition 800.
- 321.—Zoological Series, Vol. XX, pages 11-14. Two New Rodents from Argentina. By Wilfred H. Osgood. December 11, 1933. 4 pages. Edition 800.
- 322.—Zoological Series, Vol. XX, pages 15-22. New Reptiles and Amphibians from Honduras. By Karl P. Schmidt. December 11, 1933. 8 pages. Edition 800.
- 323.—Zoological Series, Vol. XX, pages 23-28. Bats of the Genera *Anoura* and *Lonchoglossa*. By Colin Campbell Sanborn. December 11, 1933. 6 pages. Edition 800.

- 324.—Zoological Series, Vol. XX, pages 29–40. Preliminary Account of the Coral Snakes of Central America and Mexico. By Karl P. Schmidt. December 11, 1933. 12 pages. Edition 800.
- 325.—Geological Series, Vol. VI, pages 61–66. Preliminary Description of a New Marsupial Sabertooth from the Pliocene of Argentina. By Elmer S. Riggs. December 11, 1933. 6 pages, 1 text-figure. Edition 800.
- 326.—Zoological Series, Vol. XX, pages 41–66. Notes on Fishes of the Family Hemirhamphidae. By Alfred C. Weed. December 11, 1933. 26 pages. Edition 800.
- 327.—Geological Series, Vol. VI, pages 67–82. A New Devonian Trilobite from Southern Illinois. By Sharat Kumar Roy. 16 pages, 4 text-figures. December 11, 1933. Edition 800.
- Geological Series. Index for Volume IV. December 30, 1933. 14 pages. Edition 800.
- Botanical Series. Index for Volume VII. December 29, 1933. 22 pages. Edition 810.

LEAFLET SERIES

- Anthropology, No. 30.—The Races of Mankind. An Introduction to Chauncey Keep Memorial Hall. By Henry Field, with a preface by Berthold Laufer and an introduction by Sir Arthur Keith. May, 1933. 40 pages, 9 photogravures, 1 plan of hall. Edition 4,005.
- Anthropology, No. 31.—Prehistoric Man. Hall of the Stone Age of the Old World. By Henry Field, with a foreword by Berthold Laufer. July, 1933. 44 pages, 8 photogravures, 1 map, 1 cover plate. Edition 4,079.
- Anthropology, No. 30.—The Races of Mankind (reprint, *see above*). August, 1933. Edition 579.
- Geology, No. 14.—A Forest of the Coal Age. By B. E. Dahlgren. October, 1933. 40 pages, 2 photogravures, 20 halftones, 4 zinc etchings, 1 cover design. Edition 2,519.
- Geology, No. 4.—Meteorites (reprint). By Oliver C. Farrington. December, 1933. 12 pages, 4 photogravures. Edition 2,010.

GUIDE SERIES

- General Guide to Exhibits of Field Museum of Natural History. Sixteenth edition. 1933. 40 pages, 3 zinc etchings, 1 photogravure (cover). Edition 11,835.
- Anthropology Guide, Part II. Archaeology of North America. By Paul S. Martin. June 15, 1933. 122 pages, 8 photogravures, 10 text-figures, 1 map. Edition 1,065.

HANDBOOK SERIES

- Handbook. General information concerning the Museum, its history, building, exhibits, expeditions and activities. Third edition. August, 1933. 68 pages, 8 halftones. Edition 2,912.
- Handbook (*see above*). Fourth edition. September, 1933. Edition 3,070.

DIVISIONS OF PHOTOGRAPHY AND ILLUSTRATION

The total number of negatives, prints, enlargements of photographs, lantern slides, and transparent exhibition labels made by the Division of Photography during the year was 8,956. Of these, 464 photographic prints and ninety lantern slides were for sales on orders placed by the public. The balance were for various uses in Departments and Divisions of the Museum.

In the Division of Photogravure there was produced a total of 521,700 photogravure prints. These were for the illustration

of publications and leaflets, for headings of posters and membership certificates, and for picture post cards.

The Museum Illustrator completed 842 orders for the Museum's Departments and Divisions. Included among these were 204 pen drawings, 29 maps, retouching of 46 photographs, and other miscellaneous tasks.

DIVISION OF PUBLICATIONS

The list of museums, research organizations, scientific societies, and individuals with which Field Museum maintains relations for the exchange of publications was subjected to careful scrutiny in 1933 to eliminate, as a measure of economy, a minority which had nothing to send in return for the scientific literature received from this institution. Notwithstanding these eliminations, the distribution of publications to institutions and individuals remaining on the list, both in this country and abroad, continued on a generous scale. The distribution in the United States and its possessions, and that in foreign countries, are practically equal in number. During the last year 6,723 copies of scientific publications and 1,044 leaflets were sent out on exchange; also, 4,020 copies of the *Annual Report of the Director* for the year 1932 and 1,072 leaflets were sent to Members of Field Museum. Sales for the year totaled 627 scientific publications, 14,809 leaflets, and 14,030 miscellaneous publications and pamphlets.

Sixteen new exchange arrangements, which it is hoped will prove of mutual advantage, were established with domestic and foreign institutions.

The Museum again desires to express its appreciation to the Smithsonian Institution at Washington, D.C., for the courteous cooperation of its exchange bureau in effecting delivery of publications in far-off countries.

For future distribution and sales, 14,847 copies of the various publications issued during 1933 were wrapped in 305 packages and were stored.

Two leaflets published in the summer have proved especially interesting to the public, more than 4,100 copies having been sold in the last six months of the year. They are *The Races of Mankind*, which was issued in connection with the opening of Chauncey Keep Memorial Hall devoted to the living races of mankind, and *Prehistoric Man*, which was published at the time the Hall of the Stone Age of the Old World was opened.

Other leaflets, especially those relating to evolution, prehistory, and ancient civilizations, continued to be "best sellers," both by mail and to Museum visitors. Popularity is indicated also for one published late in the year, *A Forest of the Coal Age*, which relates to the Museum's three-dimensional restoration of a landscape of Carboniferous time.

POST CARDS

The great demand for Museum post cards during A Century of Progress exposition made it necessary to install a third card stand. Like the two installed in 1929, it is so located and constructed as to permit viewing and selecting with ease the cards, leaflets, and publications displayed. The total number of post cards sold was 164,729, an increase of 90,139 over the 1932 sales.

Two new sets of cards were added to the series issued by the Department of Anthropology, one containing thirty-five views of bronzes depicting the races of mankind, and the other ten views of dioramas of prehistoric man. Many requests have been received for both, more than 500 sets of the pictures of the bronzes alone (totaling over 16,000 cards) having been sold during the last six months of 1933.

One of the card sets issued by the Department of Geology in 1929 was revised to include reproductions of all twenty-eight of the mural paintings of prehistoric landscapes, plants, and animals, which are exhibited in Ernest R. Graham Hall (Hall 38). Two sets of eighteen cards each were added to the zoological series, and one set of twelve cards on botanical subjects was issued. Additions to the individual post card assortment include forty-six anthropological subjects, twelve botanical, eleven geological, fourteen zoological, and three general.

DIVISION OF PUBLIC RELATIONS

World-wide publicity, with newspapers and magazines giving unusually extensive space to articles and photographs, was received by the Museum in 1933 as a result of the opening of Chauncey Keep Memorial Hall devoted to the races of mankind, and the Hall of the Stone Age of the Old World. The openings of these halls were signaled also by special programs over the radio networks of the National Broadcasting Company. The halls were productive of much favorable editorial comment as well as news stories. A series of editorials by Mr. Arthur Brisbane, widely known journalist, appeared in affiliated newspapers from coast to coast. The magazine

Fortune, in its October issue, published a notable series of large pictures in colors of the groups in the Hall of the Stone Age together with an article on the subject. *The Illustrated London News* gave a full page to photographs of the bronzes in Chauncey Keep Hall.

General publicity about all activities of the Museum having an interest to the public was maintained through the institution's Division of Public Relations as in preceding years. This has been made effective by the splendid cooperation received from newspapers, news-distributing agencies, magazines and other media of publicity. Those located in Chicago, naturally, have given the most attention to the Museum, but the press of the nation, and of foreign countries, has likewise manifested an intense interest in news of the more important activities of the institution. In addition to publishing several hundred articles and news items sent out from the Museum, some of them accompanied by photographs, editors have assigned members of their staffs to obtain special articles and series of pictures concerning the Museum.

The monthly bulletin, *Field Museum News*, completed its fourth year of publication. It has been distributed to all Members of the Museum promptly at the beginning of each month, and has also been sent as an exchange to various scientific institutions, and to a number of newspapers and magazines which have frequently reprinted or quoted parts of its contents. In publishing the *News* constant endeavor has been made to include in each issue articles and pictures which would be of interest to Members both at the time of receipt, and for preservation in reference files. Indication that this has been accomplished is seen in the many requests received for back numbers.

As in past years various organizations have placed at the disposal of the Museum, without charge, the facilities of their advertising media, and it is fitting here to express appreciation of these favors. Posters announcing the Field Museum lecture courses were again displayed in the spring and autumn at the city and suburban stations of the Illinois Central and the Chicago and North Western Railways. Libraries, schools, department stores, hotels, clubs, and other establishments likewise displayed these posters. Folders descriptive of the Museum were distributed by local and interurban transportation companies of the Chicago region as well as by railroads throughout the country.

At the invitation of Radio Station WGN of the *Chicago Tribune* a series of talks by members of the Museum staff was begun, this

series to continue into 1934. Other radio stations also contributed to the publicity opportunities of the Museum.

In line with the Museum's general economy program it became necessary early in the year to discontinue purchase of press clipping service. However, the Consolidated Press Clipping Bureaus of Chicago, which for years had furnished the service, very generously made an offer, which was accepted, to supply service on a more limited scale without charge.

DIVISION OF MEMBERSHIPS

The number of persons on the Museum's membership lists again shows a decline. This was to be expected, in view of the protracted economic depression, and duplicates the experience of most similar institutions during these times. It is gratifying to be able to report, however, that the decrease in memberships in 1933 was considerably less than the losses which occurred in 1931 and 1932. In 1931 there was a decrease of 702 Members; in 1932 the loss was 819; and, against these figures, the loss in 1933 was only 320. New Members have been enrolled in place of many who resigned.

The institution has continued to enjoy the loyal support of by far the greater proportion of its Members, and to them is extended an expression of appreciation. To those who have been forced to resign due to economic circumstances, appreciation is expressed for their past assistance to the institution, and it is hoped that improved conditions will soon make it possible for them to resume their association with the Museum.

The following tabulation shows the number of names on the rolls in each of the Museum's membership classifications at the end of 1933.

Benefactors.....	18
Honorary Members.....	18
Patrons.....	31
Corresponding Members.....	7
Contributors.....	107
Corporate Members.....	45
Life Members.....	313
Non-Resident Life Members.....	8
Associate Members.....	2,395
Non-Resident Associate Members.....	4
Sustaining Members.....	49
Annual Members.....	1,204
Total Memberships.....	4,199

The names of all persons listed as Members during 1933 will be found elsewhere in this Report.

CAFETERIA

A very accurate count was kept of the number of persons served in the cafeteria, and the total shown at the end of the year was 165,907. This was an increase of 101,773 compared with the number served in 1932, and is attributable to the Museum's record attendance of more than 3,000,000 visitors.

In addition approximately 45,000 were served with refreshments in the special children's room operated in connection with the cafeteria, making the total number served in both rooms more than 210,000.

Eight tables and thirty chairs were added to the cafeteria equipment, and additional steel shelving and an extension of the dishwashing table were provided in the kitchen.

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

STEPHEN C. SIMMS, *Director*

COMPARATIVE ATTENDANCE STATISTICS
AND DOOR RECEIPTS
FOR YEARS 1932 AND 1933

	1933		1932
Total attendance.....	3,269,390		1,824,202
Paid attendance.....	212,298		82,607
Free admissions on pay days:			
Students.....	21,901		18,548
School children.....	90,151		86,496
Teachers.....	2,295		2,121
Members.....	1,817		1,560
Admissions on free days:			
Thursdays..... (52)	895,487	(52)	325,164
Saturdays..... (52)	949,543	(53)	546,811
Sundays..... (53)	1,095,898	(52)	760,895
Highest attendance..... (Aug. 24)	65,966	(Sept. 4)	36,629
Lowest attendance..... (Feb. 7)	22	(Dec. 16)	101
Highest paid attendance..... (Sept. 4)	6,363	(July 4)	3,179
Average daily admissions..... (365 days)	8,957	(366 days)	4,984
Average paid admissions..... (208 days)	1,020	(209 days)	395
Number of guides sold.....	8,918		4,512
Number of articles checked.....	64,322		10,755
Number of picture post cards sold.....	164,729		74,590
Sales of publications, leaflets, handbooks, portfolios, and photographs.....	\$6,306.23		\$3,326.51

COMPARATIVE FINANCIAL STATEMENTS
FOR YEARS 1932 AND 1933

	1933	1932
Income from Endowment Fund	\$183,042.24	\$188,870.86
Income from funds held under annuity agreements	39,134.46	40,242.55
Income from Life Membership Fund	13,346.10	13,616.33
Income from Associate Membership Fund	12,753.90	13,973.49
South Park Commissioners	125,802.68	112,926.45
Annual and Sustaining Memberships	9,859.00	11,395.00
Admissions	53,074.50	20,651.75
Sundry receipts	21,171.41	15,933.63
Contributions, general purposes	15,991.47	114,000.00
Contributions, special purposes (expended <i>per contra</i>)	145,746.92	108,678.74
Special funds: Part expended this year for purposes created (included <i>per contra</i>)	16,396.09	31,526.21
	\$636,318.77	\$671,815.01
Less: Reserve for contractual liabilities		76,155.39
		\$595,659.62
Expenditures:		
Collections	\$175,767.04	\$127,385.69
Expeditions	7,973.96	10,181.43
Furniture, fixtures, etc.	12,894.63	4,655.42
Plant reproduction	*	5,096.46
Pensions, group insurance	16,136.76	16,479.04
Research fellowship		500.00
Departmental expenses	38,847.64	54,898.96
General operating expenses	295,342.04	302,080.25
Annuities on contingent gifts	37,138.20	38,822.26
Added to principal of annuity endowments	1,996.26	1,420.29
Interest on loans	6,049.73	7,465.38
Paid on bank loans	51,100.00	28,700.00
	\$643,246.31	\$597,685.18
Remaining excess of expenditures over income and receipts	\$ 6,927.54	\$ 2,025.56
Contribution		2,025.56
Notes payable January 1	\$156,100.00	\$184,800.00
Paid on account	51,100.00	28,700.00
Balance payable December 31	\$105,000.00	\$156,100.00

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION
COMPARATIVE FINANCIAL STATEMENTS FOR YEARS 1932 AND 1933

	1933	1932
Income from Endowment	\$17,803.58	\$20,439.36
Operating expenses	17,700.60	17,401.68
Balance, December 31	\$ 102.98	\$ 3,037.68

*Included in Collections

LIST OF ACCESSIONS

DEPARTMENT OF ANTHROPOLOGY

AYER, EDWARD E., ESTATE OF, Chicago: 9 blankets: 7 Navaho, 1 Mexican, 1 African—Navaho, United States; Mexico; and Kabyle, Berber stock, Algeria (gift).

BECKER, WILLIAM, Chicago: 1 clay tobacco-pipe—Bali, Cameroon (gift).

BLISS, WYLLYS K., Chicago: 1 small loom—Navaho; 1 glazed pottery jar—Santa Clara Indians, New Mexico (gift).

BOULTON, MRS. LAURA C., Chicago: 3 musical instruments, 8 baskets, 2 gourds, 2 axes, 1 mask, 2 ceremonial staffs, 1 ladle, 1 knife and sheath, 1 lot of keys for marimba of Ovimbundu and Vachokue, 2 shields—Angola and Nyasaland (gift).

CHALMERS, WILLIAM J., Chicago: 2 baskets of Hopi and Apache—Arizona (gift).

CHAN, GEORGE M., Chicago: 1 yellow-glazed porcelain vase, 1 stone image—China (gift).

CHANCELLOR, PHILIP M., Santa Barbara, California: 5 shell necklaces, 15 pieces of pottery, 4 baskets, 2 bows, 1 quiver, 3 arrows, 10 musical instruments, 1 dance belt, 3 headdresses, 2 masks, 1 stool, 1 tobacco-pouch, 1 feather ornament—Yaqui tribe, Mexico (gift).

CRANE, MRS. RICHARD T., JR., Chicago: 1 pre-Columbian gold beaker—Highland Indians, Peru (gift).

DEMPSTER, MRS. CHARLES W., Chicago: 1 blue and white porcelain plate, 1 Kaga porcelain ewer, 1 teapot made from a gourd—Japan (gift).

DEVINE, HERBERT J., New York: 1 clay figurine of rhinoceros of Han period—China (gift).

EXNER, PROFESSOR FRANZ F., Northfield, Minnesota: 3 bows, 12 arrows, 1 paddle, 8 pottery vessels—Aparai Indians, Amazon Basin, Brazil (gift).

FIELD, HENRY, Chicago: 25 painted pottery sherds, 1 glass vessel—Niliat, Iraq; 22 objects: Arab household equipment and saddle-bag, Beduin camel bags, 3 small rugs, Druze coffee bag, measure, pestle and mortar—Kish,

Iraq, and Qasr Azraq, Transjordan; 21 chert projectile points resembling Folsom type—Illinois and Indiana (gift).

FIELD, MARSHALL, New York: 29 sculptures of racial types (full-length figures, busts and heads)—various parts of the world (gift).

FIELD, MRS. STANLEY, Chicago: 25 sculptures of racial types (full-length figures, busts and heads)—various parts of the world (gift).

FIELD MUSEUM OF NATURAL HISTORY: Collected by Paul S. Martin (leader, Archaeological Expedition to the Southwest): 25 pottery vessels, 1,700 potsherds, 2 stone axes, 1 ceremonial celt, 5 stone pendants, 10 bone implements, 1 antler head-dress, 20 butts of roof beams, 1 human skeleton, 1 lot of animal bones—Lowry Ruin, Ackmen, Colorado.

Taken by Miss Malvina Hoffman (Expedition to Asia): 16 motion picture reels—Asia.

Transferred from Department of Geology: 1 bolas with two stone balls—Patagonia.

FILCHNER, DR. WILHELM, Berlin-Wilmersdorf, Germany: 8 reels of motion picture films of Tibetan religious dances and pantomimes—Tibet (gift).

GUEST, DR. L. O., Tampa, Florida: 9 small pottery sherds—Seminole camp, near Tampa Bay, Florida (gift).

HALVORSEN, E. E., Coalinga, California: 1 stone mortar—Yokuts, Martan Creek, Fresno County, California (gift).

HILL, PROFESSOR W. C. O., Colombo, Ceylon: 1 negocoll cast of the face of a Vedda—Ceylon (gift).

HOFFMAN, MISS MALVINA, New York: 1 limestone sculpture of a Chinese head—Shanghai, China (gift).

IZZEDDIN, MISS NEJLA, Chicago: 18 pieces of silver and other jewelry of Druze women, 1 pottery lamp—Lebanon, Syria (gift).

KEEP, CHAUNCEY, ESTATE OF, Chicago: 22 sculptures of racial types (full-length figures, busts and heads)—vari-

ous parts of the world; 50 colored transparencies representing various racial types (bequest).

LANE, MRS. WILLS B., Savannah, Georgia: 1 embroidered costume of Quiché Indian (4 pieces)—Chichicastenango, Guatemala (gift).

LAUFER, BERTHOLD, Chicago: 1 lacquered arm-rest of K'ien-lung period (1736-95)—China (gift).

LONGENECKER, CLAUD M., Warsaw, Indiana: 2 prehistoric stone axes and 50 projectile points—Kosciusko County, Indiana (gift).

MCARTHUR, F. F., Oakland, Iowa: 10 specimens of Southwest painted pottery—southwestern Colorado and southeastern Utah (exchange).

MANN, LUDOVIC M., Glasgow, Scotland: about 24 specimens of animal remains, bone and stone implements of the Azilian period—Island of Oransay, Scotland (exchange); 1 Azilian polishing tool, 2 fragments of lignite armlets, 1 flint scraper—Scotland (gift).

MOORE, H. G., Peoria, Illinois: 5 native musical instruments—Africa; Jerusalem; Turkey (gift).

MOORE, MRS. WILLIAM K., New York: 16 metal mirrors, 1 set of bronze plaques for chariot, 2 pairs of bronze ornaments for horse harness, 1 cast-iron frog—Huai River Valley, Anhui Province, China (gift).

MOOREHEAD, WARREN K., Andover, Massachusetts: 12 objects of ochre and stone implements—Red Paint Culture, Maine (exchange).

MUSÉE D'ETHNOGRAPHIE, Paris, France: 1 musical instrument, 1 lock—Bambara; 1 wax doll—Kasonké; 1 painted stone—Dogo Pinari, Sudan, French West Africa (exchange).

NATIONAL MUSEUM, Copenhagen, Denmark: 31 stone implements of the neolithic period—neolithic, Maglemo-

sean, and Campignian, Jutland, Sealand and Isle of Lolland, Denmark (exchange).

ORIENTAL LIBRARY, Tokyo, Japan: Photostat reproduction of painting by Shizuya Fujikake depicting the Mongol invasions of Japan in 1274 and 1281—Japan (gift).

PLUMMER, MISS LUCY D., Chicago: 13 specimens of glazed and painted pottery—Chama Indians, eastern Peru (gift).

POHELSKI, JEROME, Chicago: 1 grooved stone ax—Chicago (gift).

SARGENT, HOMER E., Pasadena, California: 13 rugs, blankets, and garment—Algeria and Tripoli, North Africa; 1 serape—Mexico (gift).

SCHMIDT, KARL P., Chicago: 3 pre-Columbian clay heads—Taiwan, Arak stock, Santo Domingo (gift).

SCHWEPPE, MRS. CHARLES H., Chicago: bronze group, "Unity of Mankind," of three statues of heroic size; and stone head of Rajput woman, stone bust of Chinese woman, black marble head of Abyssinian woman—Jaipur, northwest India; China; Abyssinia (gift).

SIMPSON, MR. and MRS. WILLIAM H., Chicago: 1 silk embroidery, 1 painting in colors on silk—China; 2 painted pottery jars—New Mexico (gift).

TABER, GEORGE H., Pittsburgh, Pennsylvania: 1 incense box of reticulated porcelain—China (gift).

TOWNSEND, F. C., Stratford-on-Avon, England: lot of fragmentary animal bones—gravel pits near Stratford-on-Avon, England (gift).

TULANE UNIVERSITY, DEPARTMENT OF MIDDLE AMERICAN RESEARCH, New Orleans, Louisiana: 48 clay figurines, 3 pottery vessels, 1 stone celt—Tampico, Mexico (exchange).

WALKER, JAMES F., Indianapolis, Indiana: 1 prehistoric rubbing stone—Indiana (gift).

DEPARTMENT OF BOTANY—ACCESSIONS

ELLEN, DR. PAUL, Basel, Switzerland: 8 specimens of plants (exchange).

ALFARO, PROFESSOR ANASTASIO, San José, Costa Rica: 12 specimens of mosses (gift).

AMERICAN INSTITUTE OF BAKING, Chicago: 4 samples of flour (gift).

ANDERSON, DR. EDGAR, Jamaica Plain, Massachusetts: 1 plant specimen—(gift).

ANDREWS, A. H., Estero, Florida: 1 specimen of twigs of Cajeput tree (gift).

ARNOLD ARBORETUM, Jamaica Plain, Massachusetts: 1,187 specimens of plants (exchange); 5 photographs (gift).

ARNOLD, DR. B. G., Bradenton, Florida: 1 specimen of a cultivated plant (gift).

BAILEY, DR. LIBERTY HYDE, Ithaca, New York: 1 plant specimen (gift).

BAKKE, PROFESSOR A. H., Ames, Iowa: 4 specimens of plants (gift).

BENKE, HERMANN C., Chicago: 225 specimens of plants, 1 photographic plate (gift).

BISHOP MUSEUM, BERNICE PAUHI, Honolulu, Hawaii: 154 specimens of Hawaiian plants, 2 samples of taro (exchange).

BLAKE, DR. SIDNEY F., Washington, D.C.: 1 plant specimen (gift).

BOOTH, LAWRENCE M., Balboa Island, California: 6 specimens of plants (gift).

BROADWAY, W. E., Port-of-Spain, Trinidad: 1 plant specimen (gift).

BROOKLYN BOTANIC GARDEN, Brooklyn, New York: 1 specimen of a cultivated plant (exchange).

BURKART, ARTURO, Buenos Aires, Argentina: 36 specimens of plants from Argentina (gift).

CABRERA, PROFESSOR ANGEL, La Plata, Argentina: 100 specimens of plants from Argentina (exchange).

CALDERON, DR. SALVADOR, San Salvador, Salvador: 8 specimens of plants from Salvador (gift).

CALIFORNIA ACADEMY OF SCIENCES, San Francisco, California: 287 herbarium specimens (exchange).

CAPT, MISS LUCILLE, Belton, Texas: 7 specimens of plants from Texas (gift).

CÁRDENAS, PROFESSOR MARTÍN, Potosí, Bolivia: 76 specimens of plants from Bolivia (gift).

CARNEGIE INSTITUTION OF WASHINGTON, DESERT LABORATORY, Tucson, Arizona: 185 specimens of plants from Arizona and Mexico (gift).

CARVALHO, PROFESSOR RUBEN DE SOUZA, São Paulo, Brazil: 20 photographs (gift).

CHAMBERLAIN, PROFESSOR CHARLES J., Chicago: 7 specimens of cycads (gift).

CLARE, SISTER MARY, Brookland, D.C.: 1 plant specimen (gift).

COMPANHIA FORD INDUSTRIAL DO BRASIL, Pará, Brazil: 213 herbarium specimens, 131 wood specimens, 8 plants (gift).

CONSERVATOIRE BOTANIQUE, Geneva, Switzerland: 2,400 specimens of plants (exchange).

CORNELL, MISS MARGARET M., Chicago: 2 specimens of ferns (gift).

CORNELL UNIVERSITY, DEPARTMENT OF BOTANY, Ithaca, New York: 274 specimens of plants from New York (exchange).

CRAFTSMAN WOOD SERVICE COMPANY, INC., Chicago: 2 samples of woods (gift).

CRANE AND COMPANY, INC., Dalton, Massachusetts: 16 samples of paper and paper-making materials (gift).

CUFODONTIS, DR. GIORGIO, Vienna, Austria: 6 specimens of plants (gift).

DAHLGREN, DR. B. E., Chicago: 210 specimens of plants from Brazil, 2 economic specimens (gift).

DEAM, CHARLES C., Bluffton, Indiana: 94 specimens of plants from Indiana (gift).

DICHTER, MIKE, Elburn, Illinois: 1 plant specimen (gift).

DIRECCION GENERAL DE AGRICULTURA, Guatemala City, Guatemala: 6 specimens of plants from Guatemala (gift).

DURHAM, O. C., North Chicago, Illinois: 11 specimens of plants (gift).

ELIAS, REV. BRO., Barranquilla, Colombia: 182 specimens of plants from Colombia (gift).

EMMERSON, N., Chicago: 2 samples of bread (gift).

FAIRBANKS, THOMAS N., COMPANY, New York: specimens of bamboo paper (gift).

FAWCETT, PROFESSOR HOWARD S., Riverside, California: 12 specimens of plants (gift).

FIELD MUSEUM OF NATURAL HISTORY:

Collected by Floyd T. Smith (Marshall Field Zoological Expedition to China): 2 herbarium specimens.

Rockefeller Foundation Fund for Photographing Type Specimens: 4,536 negatives of type specimens of European herbaria, 3,756 photographic prints of type specimens.

Transferred from the Division of Photography: 969 photographic prints.

Purchases: 732 plant specimens from Peru, collected by G. Klug.

FIRESTONE TIRE AND RUBBER COMPANY, Akron, Ohio: 6 sample sheets of rubber, 4 photographs (gift).

FISHER, GEORGE L., Houston, Texas: 82 specimens of plants (gift).

FLORES, DR. ROMÁN S., Progreso, Mexico: 28 specimens of plants (gift).

FRIZSCHE BROTHERS, INC., New York: 75 samples of essential oils (gift).

GARFIELD PARK CONSERVATORY, Chicago: 5 herbarium specimens, 1 trunk of palm (gift).

GARRETT, PROFESSOR A. O., Salt Lake City, Utah: 79 specimens of plants from Utah (gift).

GRAY HERBARIUM OF HARVARD UNIVERSITY, Cambridge, Massachusetts: 796 herbarium specimens (exchange).

HAYNIE, MISS NELLIE V., Oak Park, Illinois: 1 specimen of moss (gift).

HOEHNE, DR. F. C., São Paulo, Brazil: 2 specimens of plants (gift).

HOFMANN-OLSEN, T., INC., New Orleans, Louisiana: 2 boards of Cuban mahogany (gift).

HOOD, PROFESSOR J. D., Rochester, New York: 13 specimens of plants from Barro Colorado Island (gift).

HOUSTON MUSEUM OF NATURAL HISTORY, Houston, Texas: 71 specimens of plants from Texas (gift).

HUNGARIAN NATIONAL MUSEUM, Budapest, Hungary: 200 specimens of plants from Hungary (exchange).

INTERNATIONAL MILLING COMPANY, Minneapolis, Minnesota: 1 chart, 2 economic specimens (gift).

JOHNSON, S. C., AND SON, LTD., Racine, Wisconsin: 4 samples of oils (gift).

KAUFFMANN, EMILIO, Pará, Brazil: 1 trunk of rubber tree (gift).

KERN, PROFESSOR FRANK D., State College, Pennsylvania: 2 plant specimens (gift).

LABORATORIO DE BOTÁNICA, MINISTERIO DE AGRICULTURA, Buenos Aires, Argentina: 52 specimens of plants from Argentina (gift).

LABORATORIO DEL MINISTERIO DE AGRICULTURA, San Salvador, Salvador: 25 specimens of plants from Salvador (gift).

LA FOLLETT, C. M., Salem, Oregon: 4 samples of nuts (gift).

LANKESTER, C. H., Cartago, Costa Rica: 6 specimens of plants, 1 photograph (gift).

LAWRANCE, ALEXANDER E., Bogotá, Colombia: 652 specimens of plants from Colombia (gift).

LUNDELL, CYRUS L., Ann Arbor, Michigan: 60 specimens of plants from Guatemala (gift).

MACBRIDE, J. FRANCIS, Geneva, Switzerland: 1 economic specimen (gift).

MCKESSON-FULLER-MORRISON COMPANY, Chicago: 1 map (gift).

MCLAURIN-JONES COMPANY, Brookfield, Massachusetts: 5 samples of paper (gift).

MARIE-VICTORIN, BRO., Montreal, Canada: 320 specimens of plants from Canada (exchange).

MENGEL COMPANY, THE, Louisville, Kentucky: 1 board of Honduras mahogany (gift).

MEXIA, MRS. YNES, Berkeley, California: 292 specimens of plants from Brazil (gift).

MILWAUKEE PUBLIC MUSEUM, Milwaukee, Wisconsin: 4 photographs (gift).

MINISTERIO DE AGRICULTURA, Guatemala City, Guatemala: 1 plant specimen (gift).

MISSOURI BOTANICAL GARDEN, St. Louis, Missouri: 17 specimens of lichens (exchange).

MONTICELLI, DR. JUAN V., Buenos Aires, Argentina: 2 specimens of plants (gift).

MOORE, H. G., Peoria, Illinois: 3 samples of soap (gift).

MOORE, ROBERT, Bradenton, Florida: 1 plant specimen (gift).

MUELLER, C. H., Cuero, Texas: 474 specimens of plants from Texas and Mexico (gift).

MUSEU NACIONAL, Rio de Janeiro, Brazil: 60 specimens of plants from Brazil (exchange).

MUSEO NACIONAL, San José, Costa Rica: 436 specimens of plants from Costa Rica (gift).

NATURHISTORISCHES MUSEUM, Vienna, Austria: 9 specimens of plants from Costa Rica (exchange).

NATURHISTORISKA RIKSMUSEET, BOTANISKA AFDELNING, Stockholm, Sweden: 460 herbarium specimens (exchange).

NEW YORK BOTANICAL GARDEN, Bronx Park, New York: 104 herbarium specimens, 1,594 photographs of type specimens of plants (exchange).

ORTEGA, JESÚS G., Mazatlán, Mexico: 190 specimens of plants from Mexico (gift).

OSTERHOUT, GEORGE E., Windsor, Colorado: 16 specimens of plants (gift).

PALM OIL COMPANY, Plainfield, New Jersey: 14 samples of palm nuts and oils, 3 photographs (gift).

PARKE, DAVIS AND COMPANY, Detroit, Michigan: 1 economic specimen (gift).

PARK, RICHMOND AND COMPANY, Chicago: 1 mahogany board from Santo Domingo (gift).

PARODI, PROFESSOR LORENZO R., Buenos Aires, Argentina: 49 specimens of plants from Argentina (gift).

PEPOON, DR. HAROLD S., Urbana, Illinois: 2 specimens of plants (gift).

POLISH INSTITUTE FOR COLLABORATION WITH FOREIGN COUNTRIES, Warsaw, Poland: 40 samples of economic materials of Poland (gift).

POMONA COLLEGE, DEPARTMENT OF BOTANY, Claremont, California: 465 specimens of plants from California (exchange).

ROZYSKI, DR. H. W. VON, Jaumave, Mexico: 348 specimens of plants from Mexico (gift).

RUNYON, ROBERT, Brownsville, Texas: 44 specimens of plants (gift).

SALGUES FOUNDATION OF BRIGNOLES, Brignoles, France: 147 packets of seeds (exchange).

SANTA BARBARA MUSEUM OF NATURAL HISTORY, Santa Barbara, California: 1 plant specimen (gift).

SCHIPP, WILLIAM A., Stann Creek, British Honduras: 314 specimens of plants from British Honduras (gift).

SHERFF, DR. EARL E., Chicago: 324 herbarium specimens (gift).

SMITH, F. W., Guasave, Mexico: 2 specimens of plants (gift).

SMITH AND McLAURIN, LTD., Milliken Park, Scotland: 3 samples of paper-making materials (gift).

STANFORD UNIVERSITY, DUDLEY HERBARIUM, California: 397 specimens of plants from California (exchange).

STEARNS, W. T., Cambridge, England: 5 specimens of plants (gift).

STEED, W. J., New York: 1 plant specimen (gift).

STORK, PROFESSOR HARVEY E., Northfield, Minnesota: 225 specimens of plants from Costa Rica (gift).

SWANSON, MISS CAROLINE, Chicago: 2 specimens of plants (gift).

TAIHOKU IMPERIAL UNIVERSITY, Taihoku, Taiwan, Japan: 400 specimens of plants from Formosa (exchange).

TALCOTT, MRS. E. A., Chicago: 1 lignum-vitae ruler (gift).

UNITED STATES DEPARTMENT OF AGRICULTURE, BUREAU OF PLANT INDUSTRY, Washington, D.C.: 2 photographs (gift).

UNITED STATES DEPARTMENT OF THE INTERIOR, AGRICULTURAL EXPERIMENT STATION, St. Croix, Virgin Islands: 1 sample of bay leaves (gift).

UNITED STATES NATIONAL MUSEUM, Washington, D.C.: 594 herbarium specimens (exchange).

UNIVERSITETETS BOTANISKE MUSEUM, Copenhagen, Denmark: 947 herbarium specimens (exchange).

UNIVERSITETETS BOTANISKE MUSEUM, Oslo, Norway: 474 herbarium specimens (exchange).

UNIVERSITY OF CALIFORNIA, DEPARTMENT OF BOTANY, Berkeley, California: 417 specimens of plants (exchange).

UNIVERSITY OF CALIFORNIA AT LOS ANGELES, Los Angeles, California: 137 specimens of plants from Mexico (gift); 192 specimens of plants from California and Mexico (exchange).

UNIVERSITY OF CALIFORNIA, COLLEGE OF AGRICULTURE, DIVISION OF POMOLOGY, Davis, California: 4 specimens of jubes and almonds (gift).

UNIVERSITY OF FLORIDA, AGRICULTURAL EXPERIMENT STATION, Gainesville, Florida: 50 specimens of pecan nuts (gift).

UNIVERSITY OF MICHIGAN, DEPARTMENT OF BOTANY, Ann Arbor, Michigan:

34 specimens of plants (gift); 1,151 specimens of plants (exchange).

UNIVERSITY OF TEXAS, DEPARTMENT OF BOTANY, Austin, Texas: 216 specimens of plants (gift).

UPHOF, DR. J. C. TH., Winter Park, Florida: 400 specimens of Florida plants (exchange).

VAN CLEEF BROTHERS, Chicago: 13 samples of rubber (gift).

VAUGHAN'S SEED STORE, Chicago: 2 specimens of shrubs (gift).

WAITMAN, JOHN, Redington, Nebraska: 1 root of cottonwood tree (gift).

WILLIAMS, ICHABOD T., AND SONS, New York: 1 board of Peruvian mahogany (gift).

WOOTEN, CAPTAIN H. C., Chicago: 1 specimen of teak from Burma (gift).

WORTHY PAPER COMPANY, West Springfield, Massachusetts: 7 samples of paper (gift).

YALE UNIVERSITY, SCHOOL OF FORESTRY, New Haven, Connecticut: 561 specimens of plants, 1 board of eucalyptus (gift).

ZETEK, JAMES, Balboa, Canal Zone: 73 specimens of plants, 2 photographic prints (gift).

DEPARTMENT OF GEOLOGY—ACCESSIONS

ACKERMAN, C. N., Chicago: skull and one-half skeleton of *Bison americanus*—Antioch, Illinois (gift).

ACKERMANN, FRITZ, Bahia, Brazil: 2 quartz crystals with phantoms—Bahia, Brazil (gift).

AIR REDUCTION SALES COMPANY, Chicago: cabinet of 8 tubes of rare gases of the atmosphere (gift).

AXE, B. E. and FRANCES C., Seattle, Washington: 1 gold nugget—Dawson, Canada (gift).

BLASCHKE, FREDERICK, Cold Spring-on-Hudson, New York: 1 specimen of placer gold ore—Cold Spring-on-Hudson, New York (gift).

BOHN, MRS. BERTHA B., Chicago: 1 specimen of fibrous epsomite—Chicago (gift).

BRADY, L. F., Mesa, Arizona: 1 specimen of quartz sericite—Gun Creek, Arizona (gift).

CAPLAN, ALLAN, Creede, Colorado: 6 specimens of pickeringite and goslarite—Creede, Colorado (exchange).

CHANEY, DR. RALPH W., Berkeley, California: 125 specimens of fossil plants, 4 specimens of fossil pine cones—California (exchange).

CHISOS MINING COMPANY, Terlingua, Texas: 15 specimens of mercury ore—Terlingua, Texas (gift).

CHRISTOPHER, LOUISE, Chicago: 2 gypsum rosettes—Coteau County, South Dakota (gift).

COLBURN, BURNHAM S., Biltmore, North Carolina: 5 specimens of minerals—North Carolina (gift).

CRYSTAL FLUORSPAR COMPANY, Elizabethtown, Illinois: 2 specimens of fluorite—Elizabethtown, Illinois (gift).

DAVIS, O. L., Elmhurst, Illinois: 1 specimen of oolitic jasper, 1 specimen of agate—south of Cape Flattery, Washington (gift).

DEARDORFF, VERGIL, Silt, Colorado: lower jaw of fossil mammal—Colorado (gift).

DOWLING, O. J., Carlsbad, New Mexico: 3 specimens of sylvite—near Carlsbad, New Mexico (gift).

DRASEK, FRANK VON, Cicero, Illinois: 13 specimens of minerals—Murfreesboro, Arkansas; 1 specimen of native lead—Silver City, New Mexico (gift).

EMBREE IRON COMPANY, Chicago: 1 cerussite stalactite—Johnson City, Tennessee (gift).

ERIKSEN, JOHAN, Oslo, Norway: 1 specimen of rhombenporphyry—Oslo, Norway (gift).

FIELD, HENRY, Chicago: skull of camel—Miliat, Mesopotamia (gift).

FIELD MUSEUM OF NATURAL HISTORY: Collected by Bryan Patterson and James Quinn (Expedition to Colorado and Nebraska): 2 specimens of peat, 1 specimen of fresh-water chalk, 43 specimens of fossil mammals, 2 specimens of fossil reptiles—western Colorado; 6 specimens of fossil mammals—Ainsworth, Nebraska.

Collected by E. S. Riggs (Marshall Field Paleontological Expedition to Argentina, 1922–25): 110 specimens of wood opal, 1 specimen of rock—Rio Chico, Argentina.

Collected by G. F. Sternberg (Marshall Field Paleontological Expedition to Argentina, 1922–25): 2 specimens of chalcedony, 17 specimens of fossil wood—Rio Chico, Argentina.

Collected by the Fourth Asiatic Expedition of the American Museum of Natural History, New York, and Field Museum of Natural History: lower jaws of shovel-tusked mastodon *Platybelodon*—Mongolia.

Collected by Henry W. Nichols: 3 specimens of marl—Antioch, Illinois.

Collected by Sharat K. Roy: 615 specimens of invertebrate fossils—New York, New Jersey, and Pennsylvania.

Purchases: a slice of the Melrose meteorite—Melrose, New Mexico; 1 individual meteorite—Archie, Missouri.

FLANDERS, F. D., Edinburg, Texas: molar tooth of *Elephas imperator*—near Roma, Texas (gift).

FREDERICK, G. K., Ranger, South Dakota: 2 hematite geodes—Bad Lands, South Dakota (gift).

FRIESSER, JULIUS, Chicago: 1 specimen of stigmara—New River, West Virginia (gift).

GREEN, A. P., FIRE BRICK COMPANY, Mexico, Missouri: 1 specimen of diaspore—Mexico, Missouri (gift).

GREEN, DARSIE A., Norman, Oklahoma: 2 geodes—Pottawotamie County, Oklahoma (gift).

HALVERSON, E. E., Coalinga, California: 11 specimens of fossil wood—west of Coalinga, California; 1 specimen of calcareous tufa—Warthan Creek, California (gift).

HAYDEN LAKE MINING AND MILLING COMPANY, Rathdrum, Idaho: 4 specimens of copper ore—Rathdrum, Idaho (gift).

HEDBURN, PAUL, Westmont, Illinois: 7 fossil leaves—Mazon Creek, Illinois (gift).

HERRE, FRED E., Ainsworth, Nebraska: lower jaw of undetermined canid—Ainsworth, Nebraska (gift).

HOUSTON MUSEUM OF NATURAL HISTORY, Houston, Texas: 1 specimen of pink calcite—Texas (gift).

JENNINGS, J. W., Eureka, Arkansas: 2 specimens of jasper, 1 specimen of brecciation in limestone, 1 specimen of tufa, 2 specimens of chalcedony—Eureka Springs, Arkansas (gift).

JONES, A. C., Cicero, Illinois: 2 specimens of wulfenite, 2 specimens of cerussite—Hilltop Mine, Arizona (gift).

KUNZ, G. FREDERICK, New York: 2 fragments of emerald—Colombia (gift).

KYANCUTTA MUSEUM, Kyancutta, Australia: 18 specimens of meteorite and meteorite crater products—Henrybury, Australia (exchange).

LAY, ARTHUR J., Elizabethtown, Illinois: 2 specimens of fluorspar—Crystal Mine, Illinois (gift).

LIPMAN, ROBERT R., Chicago: 1 specimen of native lead—Italian Mountains, Colorado (gift).

McGEE, WALTER S., Chicago: 1 glacial boulder (gift).

McINTOSH, F. G., Beverly Hills, California: 3 specimens of barite, 4 specimens of calcareous tufa, 12 specimens of barite crystals—California (exchange).

McNEILL, E. L., Elkhart, Kansas: 1 fulgurite—Elkhart, Kansas (gift).

MANNEL, CHARLES, Lincoln, Kansas: 1 specimen of *Scaphites*—Blue Hill, Kansas (gift).

MANNING, JAMES, Chicago: 1 specimen of gold ore (black sand), 1 specimen of placer gold ore, 1 specimen of tin ore—Alaska (gift).

MARICOTT, CHARLES, Sault Sainte Marie, Michigan: 14 specimens of claystones—Sault Sainte Marie, Michigan (gift).

MARKHAM, FLOYD, Chicago: 3 specimens of invertebrate fossils—Blue Island, Illinois (gift).

MILLAR, A. O., Murfreesboro, Arkansas: 1 specimen of blue ground breccia matrix of diamond—Pike County, Arkansas (gift).

NELSON, GEORGE, Chicago: 7 specimens of native copper—Keweenaw Point, Michigan (gift).

NEW JERSEY ZINC COMPANY, Franklin Furnace, New Jersey: 9 slabs of partly fabricated zinc (gift).

NININGER, PROFESSOR H. H., Denver, Colorado: 2 photographs of Huizopa meteorite (exchange).

NORTHWESTERN UNIVERSITY, Evanston, Illinois: skeleton of Indian elephant—Sewalik Mountains, India (gift).

NORTHWEST MINING ASSOCIATION, Spokane, Washington: 27 specimens of ores—Washington (gift).

PITTS, WILLIAM B., Sunnyvale, California: 5 specimens of wax opal, 14 specimens of polished agate, 1 mineral—various localities (gift).

POLISH INSTITUTE FOR COLLABORATION WITH FOREIGN COUNTRIES, Warsaw, Poland: 61 specimens of ores and economic minerals—Poland (gift).

PYLE, L. S., Chicago: 1 specimen of *Orthoceras annulatum* in matrix—Riverside, Illinois (gift).

QUINN, JAMES H., Ainsworth, Nebraska: 18 specimens of vertebrate fossils, 1 specimen of fossil reptile—Ainsworth, Nebraska (gift).

QUINN, LESLIE K., Ainsworth, Nebraska: partial skeleton of fossil rodent—Ainsworth, Nebraska (gift).

SALGUES FOUNDATION OF BRIGNOLES, Brignoles, France: 3 specimens of bauxite—Brignoles, France (exchange).

SALIE, PRINCE M. U. M., Galle, Ceylon: 55 gems—Ceylon (gift).

SAROCK, THOMAS, St. James, Missouri: 1 specimen of invertebrate fossil (gift).

SCHEIBNER, J. G., Chicago: 1 specimen of *stigmara*—Franklin County, Illinois (gift).

SEYMOUR, DR. T. F., Mishawaka, Indiana: 4 specimens of free gold in matrix—Ontario, Canada (gift).

STANDARD OIL COMPANY (INDIANA), Chicago: 74 specimens of petroleum products, 60 photographs (gift).

UNITED STATES NATIONAL MUSEUM, Washington, D.C.: etched section of Deport meteorite—Texas; etched section of Santa Fé meteorite—New Mexico; 4 specimens of *Plesippus*—Idaho (exchange).

VARNI, STEPHEN, New York: 5 specimens illustrating stages of cutting a star from crystal (gift).

WALTHER, HERBERT C., Chicago: 1 specimen each of metallic molybdenum, trona and ulexite, halite cube with bubbles, columnar halite (gift).

DEPARTMENT OF ZOOLOGY—ACCESSIONS

ABEGG, KLAUSS, Homewood, Illinois: 4 rodent skins and skulls, 1 white-throated sparrow skin, 2 toads, 1 snake—Isle Royale, Michigan (gift).

ACADEMIA SINICA, Nanking, China: 22 small mammal skins and skulls—China (gift).

ALLEN, G. C., Chicago: 1 white-tailed deer (antlers and skull)—Alabama (gift).

AMERICAN MUSEUM OF NATURAL HISTORY, New York: 9 mouse opossum skins and skulls—South America; 2 bat skins and skulls—Fukien, China (exchange).

ANONYMOUS: 4 bird skeletons—various localities (gift).

ANTUNANO, J. A. SANCHEZ, Merida, Yucatan: 2 bobwhite skins—Yucatan (gift).

ARNETT, C. E., Naperville, Illinois: 1 bird skeleton—Naperville, Illinois (gift).

BAILEY, H. H., Miami, Florida: 4 bat skins and skulls—Balfate, Honduras; 8 bird skins—Honduras and Cuba (exchange).

BAKER, MISS M. B., Chicago: 1 pine grosbeak—Chicago (gift).

BARTLETT, WATSON, Mendota, Illinois: 1 albino ovenbird—Mendota, Illinois (gift).

BEBB, HERBERT, Chicago: 1 beetle—Chicago (gift).

BIRKHOLZ, MRS. HENRY, Laporte, Indiana: 1 long-tailed shrew—Laporte, Indiana (gift).

BIRKS, THOMAS K., Chicago: 1 tiger salamander, 1 lamprey—Okee, Wisconsin (gift).

BISHOP, DR. S. C., Rochester, New York: 1 small boa—Rochester, New York (gift).

BOULTON, RUDYERD, Chicago: 1 West African wood swallow—lower Congo, Africa; 19 bird skins, 35 bird skeletons—Illinois; 65 dragon-flies—Illinois and Wisconsin (gift).

BOWER, H. M., Evanston, Illinois: 4 butterflies—Dickerson County, Michigan (gift).

BRANDER, A. A. DUNBAR, Elgin, Scotland: 1 goosander, 1 corn crane, 1 common snipe, 1 jack snipe—Scotland (gift).

BRUNDAGE, EDWARD, JR., Lake Forest, Illinois: 1 woodchuck skull—Illinois; 45 salamanders, 1 frog, 1 snake, 74 insects—North Carolina; 2 worms, 231 insects—United States (gift).

BUCK, WARREN, Camden, New Jersey: 1 monitor lizard—Sierra Leone (gift).

BULLOCK, DILLMAN S., Angol, Chile: 57 frogs, 87 lizards, 14 snakes—Chile (gift).

BURT, DR. CHARLES E., Winfield, Kansas: 18 frogs, 20 lizards, 15 snakes—various localities (gift).

CALIFORNIA INSTITUTE OF TECHNOLOGY, Pasadena, California: 28 small mammal skins and skulls—Argentina (exchange).

CARNEGIE MUSEUM, Pittsburgh, Pennsylvania: 5 turtles, 15 snakes, 116 lizards—Angola (exchange).

CHARLESTON MUSEUM, Charleston, South Carolina: 34 pickerel, 6 rock sea bass—South Carolina (gift).

CLARK, DAN, Wheeling, Illinois: 1 starling skeleton—Wheeling, Illinois (gift).

CONOVER, BOARDMAN, Chicago: 1 bat skin and skull—Ecuador; 1 pheasant, 1 bobwhite, 7 bird skeletons—Illinois; 2 sun bitterns—Brazil (gift).

CRANDALL, R. H., Athens, Pennsylvania: 1 beetle—North Carolina (exchange).

CUTTING, C. SUYDAM, New York: 133 small mammal skins, 127 skulls, 70 bird skins—Upper Burma (gift).

DAILY, JOHN, Indianapolis, Indiana: 105 fishes—near Biloxi, Mississippi (gift).

DAVIS, D. DWIGHT, Naperville, Illinois: 4 bats, 9 small mammal skeletons—Illinois (exchange); 1 ground squirrel skeleton—Naperville, Illinois; 4 bird skeletons—various localities (gift).

DAVIS, D. DWIGHT, Naperville, Illinois; and NECKER, WALTER L., Chicago, 22 salamanders, 22 frogs, 4 lizards, 13 snakes, 21 turtles—southern Illinois (gift).

DEUTSCHES ENTOMOLOGISCHES INSTITUT, Berlin-Dahlem, Germany: 1 beetle—Council Bluffs, Iowa (exchange).

DICKINSON, J. W., Chicago: 1 spider—Chicago (gift).

DUNCAN, D. K., Globe, Arizona: 2 butterflies—White Mountains, Arizona (gift).

DYBAS, HENRY, Chicago: 4 beetles—Illinois and Indiana (gift).

DYBAS, HENRY, and NEITZEL, WILLIAM, Chicago: 2 newts—Willow Springs, Illinois (gift).

ECKSTROM, MRS. FANNIE H., Brewer, Maine: 1 Hoy's shrew—Holden, Maine (gift).

ELLIOTT, DR. JOHN A., Chicago: 1 hog-nosed snake—Sheridan, Illinois (gift).

EMERSON, DR. ALFRED E., Chicago: 1 western wood frog—Wyoming (gift).

FELIPPONE, DR. FLORENTINO, Montevideo, Uruguay: 4 bats—Uruguay (gift).

FIELD, HENRY, Chicago: 2 rodents, 22 bats, 1 sunbird—Arabia (gift).

FIELD MUSEUM OF NATURAL HISTORY:

Collected by Julius Friesser and Frank C. Wonder (Hancock Expedition to Guadalupe Island): 5 elephant seals, 30 bird skins, 5 bird skeletons—Guadalupe and San Benito Islands; 15 lizards, 2 shells—Lower California, Mexico; 11 bats—Whittier, California.

Collected by Dr. A. W. Herre (Cornelius Crane Pacific Expedition): 980 fishes—various localities.

Collected by John W. Moyer: 11 bird skins—Sparland, Illinois.

Collected by Bryan Patterson (Paleontological Expedition to Colorado, 1933): 17 mammal skeletons, 12 bird skeletons, 4 toads, 8 snakes, 346 insects, 1 scorpion—Mesa County, Colorado.

Collected by Bryan Patterson: 2 pocket gophers—Kankakee County, Illinois.

Collected by Harry S. Swarth: 6 bird skeletons—Illinois.

Purchases: 3 snakes—California; 93 mammal skins and skulls—Ecuador; 2 sage grouse—Wyoming.

FLOTZ, FRANK, Chicago: 1 king rail—Chicago (gift).

FORBIS, HOMER, Albany, Missouri: 5 hair worms—Albany, Missouri (gift).

FRANZEN, ALBERT J., Chicago: 1 pocket gopher skeleton, 4 bird skeletons, 2 salamanders, 4 snakes, 4 house crickets—Illinois (gift).

FRIESSER, JULIUS, Chicago: 1 hog sucker—Kankakee, Illinois; 1 dobson—Yorkville, Illinois (gift).

FULLMER, P. F., Aurora, Illinois: 1 brown thrasher—Aurora, Illinois (gift).

GENERAL BIOLOGICAL SUPPLY HOUSE, Chicago: 2 zone-tailed hawks—Arizona (exchange).

GREEN, MORRIS M., Ardmore, Pennsylvania: 1 giant shrew—Colombo, Ceylon (exchange).

GUERET, EDMOND, Chicago: 1 bird skeleton—Illinois (gift).

HEIM, EDWARD, Wauchula, Florida: 1 moth—Wauchula, Florida (gift).

HERSHKOVITZ, PHILIP, Pittsburgh, Pennsylvania: 1 Texas cave salamander, 3 lizards—Blanco County, Texas (gift).

HICKIN, NORMAN E., Birmingham, England: 181 butterflies and moths—England (gift).

HINE, ASHLEY, Chicago: 1 Arizona crested flycatcher—Arizona; 6 bird skins—various localities (exchange).

IDZKOWSKI, JOSEPH, Chicago: 2 beetles—Chicago (gift).

ILLINOIS STATE NATURAL HISTORY SURVEY, Urbana, Illinois: 31 plant bugs—Illinois (exchange).

JOHNSON, WILLIAM F., Downers Grove, Illinois: 2 flies—Downers Grove, Illinois (gift).

KELLER, JOHN H., Anderson, Indiana: 1 rabbit skull—Madison County, Indiana (gift).

KELLOGG, MR. and MRS. J. P., Lake Forest, Illinois: 117 bird skins—Kenya and Tanganyika, Africa (gift).

KLAUBER, LAURENCE M., San Diego, California: 2 salamanders, 1 frog, 11 lizards, 9 snakes—various localities; 2 lizards—Malpelo Island (exchange).

KRAUTH, EMIL, Hebron, North Dakota: 23 butterflies—South Dakota and Montana (gift).

LAKE, WILLIAM G., Chicago: 2 mole crickets—Winchester, Illinois (gift).

LAWRENCE, TREVILLE, Marietta, Georgia: 1 black vulture skeleton—Marietta, Georgia (gift).

LAYBOURNE, WESLEY LEE, Homewood, Illinois: 1 water snake—Kankakee River, Illinois (gift).

LIETZOW, MRS. W. W., Chicago: 1 mounted snowy owl—Gascoyne, North Dakota (gift).

LILJEBLAD, EMIL, Chicago: 262 insects—various localities (gift).

LINCOLN PARK COMMISSIONERS, Chicago: 3 bird skeletons—various localities; 1 Malayan tapir (gift).

LIU, C. C., Ithaca, New York: 2 toads—Peiping, China (gift).

MAZURE, ANTON, Chicago: 2 jack-rabbits—Wallace, Kansas (gift).

MENGEL, DR. LEVI W., Reading, Pennsylvania: 1 butterfly—Chanchomayo, Peru (gift).

MILES, P. M., St. Louis, Missouri: 1 Komodo lizard skeleton—East Indies (gift).

MILLER, ALDEN H., Berkeley, California: 6 bird skeletons—Butte County, California (exchange).

MITCHELL-HEDGES, F. A., New York: 1 elephant beetle—Island of Bonacca (gift).

MOONEY, JAMES J., Highland Park, Illinois: 2 mouse skeletons, 2 bird skeletons—Illinois (gift).

MOYER, JOHN W., Chicago: 15 bird skeletons—Illinois (exchange); 1 American osprey—Illinois (gift).

MULLEN, MISS ZENITH, Parsons, Kansas: 1 albino robin—Allen County, Kansas (gift).

MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Massachusetts: 2 bats—Philippine Islands; 1 alligator—Florida

(gift); 1 bat skin and skull, 12 bats in alcohol—various localities; 8 frogs, 1 caecilian, 45 lizards, 1 snake, 1 turtle, 1 crocodile—Africa (exchange).

NATURHISTORISCHES MUSEUM, Vienna, Austria: 10 bird skins—eastern Congo, Africa; 76 bird skins—East Africa (exchange).

NECKER, WALTER L., Chicago: 28 frogs and toads, 1 lizard, 8 snakes—Illinois and Wisconsin (exchange).

NEVILLE, RUSSELL T., Kewanee, Illinois: 4 bats, 4 salamanders, 3 frogs, 1 lizard—Missouri (gift).

NORRIS, PROFESSOR H. W., Grinnell, Iowa: 5 shark heads—Biloxi, Mississippi (gift).

OLEN, W. A., and HURLEY, F. D., Clintonville, Wisconsin: 1 spectacled bear—Peru (gift).

PARK, DR. ORLANDO, Champaign, Illinois: 5 insects—various localities (gift).

PETERSEN, MARTIN, Chicago: 1 South American catfish; 2 fishes (gift).

PHILLIPS, L. H., Patterson, California: 430 insects—Mindanao, Philippine Islands (gift).

PIRIE, JOHN T., Chicago: 1 sharp-shinned hawk—Lake Forest (gift).

PLATH, KARL, Chicago: 9 bird skeletons (gift); 4 bird skeletons—various localities (exchange).

PRAY, LEON L., Homewood, Illinois: 1 roach—Homewood, Illinois (gift).

QUANTOCK, THOMAS, Naperville, Illinois: 1 horse skeleton—Naperville, Illinois (gift).

RICHARDS, FLIGHT LIEUTENANT A. R. M., Aden, Arabia: 14 lizards, 1 centipede—Arabia (gift).

RICKS, VICTOR, Santiago, Chile: 5 bird skins—central Chile (exchange).

ROBINSON, JOHN H., Dallas, Texas: 2 lizards, 5 snakes—Sullivan, Missouri; 58 insects—various countries (gift).

ROSS, WILLIAM J., Chicago: 2 beetles—Chicago (gift).

RUECKERT, ARTHUR G., Chicago: 1 long-eared owl skeleton—Chicago; 1 beetle—Tessville, Illinois (gift).

SAIKIN, SAMUEL, Chicago: 1 musk turtle—Round Lake, Illinois (gift).

SANBORN, COLIN C., Highland Park, Illinois: 1 bird skeleton—Illinois (gift).

SCHMIDT, FRANK J. W., Madison, Wisconsin: 3 salamanders, 3 frogs, 12 lizards, 7 snakes, 1 turtle—Wisconsin (gift).

SCHMIDT, KARL P., Homewood, Illinois: 1 bat skeleton, 2 birds—Illinois (gift).

SENCKENBERGISCHES MUSEUM, Frankfort, Germany: 21 frogs, 48 lizards, 18 snakes—Madagascar (exchange).

SHEDD, JOHN G., AQUARIUM, Chicago: 125 fishes—various localities; 10 fishes—Hawaii and Australia; 116 fishes—various parts of Pacific Ocean; 6 fishes—West Africa; 1 locust lobster—Miami, Florida (gift).

SIMPSON, JAMES, Chicago: 2 mounted capercaillie—Scotland (gift).

SPRANG, W. G., Curtis, Michigan: 2 prairie chickens—Mackinaw County, Michigan (gift).

SPRINGER, STEWART, Biloxi, Mississippi: 48 fishes—Gulf of Mexico (gift).

STRAUSS, LIEUTENANT RALPH, Canal Zone, Panama: 1 mounted toucan—Canal Zone, Panama (gift).

SVIHLA, ARTHUR, Pullman, Washington: 3 mountain beaver skeletons—Washington (exchange).

TEST, FREDERICK H., Lafayette, Indiana: 2 rodent skins and skulls, 12 bats in alcohol—Tela, Honduras (gift).

THEUNE, JUAN, Santiago, Chile: 6 bird skins—Chile (exchange).

THOMPSON, GEORGE, Chicago: 1 siren—Hebron, Indiana (gift).

THOMPSON, COLONEL LEWIS S., Red Bank, New Jersey: 3 batfish—Florida (gift).

TILSKE, MRS. LILLIAN, Chicago: 1 mounted least bittern (gift).

UNITED STATES DEPARTMENT OF AGRICULTURE, Washington, D.C.: 3 bundles of bamboo culms—Savannah, Georgia (gift).

UNIVERSITY OF CHICAGO, Chicago: 4 lizards, 4 turtle shells, 16 land turtle skulls, 2 turtles in alcohol—Galapagos Islands (gift).

UNIVERSITY OF KANSAS, Lawrence, Kansas: 13 horseflies—western United States (exchange).

VAINISI, PHILLIP, Chicago: 1 scorpion—Cuba (gift).

WALKER, CHARLES F., Columbus, Ohio: 4 tree frogs—Sugar Grove, Ohio (gift).

WALTERS, LEON L., Chicago: 1 iguana—Central America (gift).

WEBER, WALTER A., Highland Park, Illinois: 4 bird skeletons—various localities (gift).

WEED, ALFRED C., Chicago: 1 catfish—Momence, Illinois; 25 ticks—Chicago (gift).

WILEY, MRS. GRACE, Minneapolis, Minnesota: 2 tree frogs (gift).

WILLIAMS, JONATHAN, Evanston, Illinois: 2 snakes—Evanston, Illinois (gift).

WITSCHI, DR. EMIL, Iowa: 1 salamander, 4 toads—various localities (gift).

WOLCOTT, ALBERT B., Downers Grove, Illinois: 173 insects—Illinois and Indiana (gift).

WONDER, FRANK C., Chicago: 1 red bat, 3 bird skeletons—Illinois (gift).

WOOLSEY, RICHARD H., Marseilles, Illinois: 1 beetle—near Marseilles, Illinois (gift).

ZALSMAN, PHIL G., Grayling, Michigan: 4 brook trout—Grayling, Michigan (gift).

RAYMOND FOUNDATION—ACCESSIONS

AMERICAN MUSEUM OF NATURAL HISTORY, New York: seven 35-mm. motion picture reels, *Simba* (gift).

FIELD, HENRY, Chicago: 108 slides on *Kish* (gift).

FIELD MUSEUM OF NATURAL HISTORY: From Division of Photography: 4 slides for Theatre use.

FILCHNER, DR. WILHELM, Berlin-Wilmersdorf, Germany: eight 35-mm. motion picture reels, *Tibetan Dances* (gift).

HOFFMAN, MISS MALVINA, New York: sixteen 16-mm. motion picture reels and 148 slides made on expedition around the world (gift).

SWETT, W. CHARLES, Hollywood, California: 150 feet of 16-mm. motion picture film, *Elephant Seals* (purchase).

VERNAY, ARTHUR S., New York: two 35-mm. motion picture reels and several hundred feet of loose strips on *India* (gift).

DIVISION OF PHOTOGRAPHY—ACCESSIONS

FIELD, JOSEPH N., II, Chicago: 2 negatives of a model of Natural Bridge, Virginia (gift).

Developed for expeditions: 82 negatives.

FIELD MUSEUM OF NATURAL HISTORY: Made by Division of Photography: 6,536 prints, 1,863 negatives, 94 lantern slides, 269 enlargements, and 112 transparent labels.

Made by Dr. Paul S. Martin: 108 negatives of Lowry ruin, Colorado.

Made by Bryan Patterson: 30 general views of Colorado.

Purchases: 28 negatives of prehistoric animals of western Europe.

LIBRARY—ACCESSIONS

List of Donors of Gifts

INSTITUTIONS

Agricultural Experiment Station, New Haven, Connecticut.

Garden Club of America, New York.

Agricultural Experiment Station, Agricultural College, Mississippi.

General Biological Supply House, Chicago.

American Friends of China, Chicago.

General Electric X-Ray Corporation, Chicago.

Berkshire Museum, Pittsfield, Massachusetts.

Geological Survey, Columbus, Ohio.

Billings Medical Club, Chicago.

Gulf Refining Company, Pittsburgh, Pennsylvania.

Black Diamond, Chicago.

Hardwood Record, Chicago.

Black Hills Engineer, Rapid City, South Dakota.

Hartford Public Library, Hartford, Connecticut.

Board of Health, Chicago.

Henry E. Huntington Library and Art Gallery, San Marino, California.

Bunrika Daigaku, Tokyo, Japan.

Canadian Mining Journal, Garden-
vale, Canada.

Illinois Bell Telephone Company, Chicago.

Carnegie Corporation of New York.

Imperial College of Science and Technology, London, England.

Carnegie Institution of Washington, D.C.

Institut International d'Agriculture, Rome, Italy.

Century of Progress, A, Chicago.

Institut International de Cooperation Intellectuelle, Paris, France.

Chicago Association of Commerce, Chicago.

Institute of Art, Tokyo, Japan.

Chicago Plan Commission, Chicago.

International Review of Legislation for Protection of Nature, Brussels, Belgium.

Children's Museum, Boston, Massachusetts.

Izaak Walton League of America, Chicago.

Comision Nacional de Irrigación, Mexico City, Mexico.

Japan Society, New York.

Cook County Forest Preserve District, Chicago.

Japanese Embassy, Washington, D.C.

Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Junior Society of Natural Sciences, Cincinnati, Ohio.

Denver Art Museum, Denver, Colorado.

Laboratoire de Plasmogénie, Mexico City, Mexico.

Drew University, Madison, New Jersey.

Louisiana State University, Baton Rouge, Louisiana.

Game, Fish and Oyster Commission, Austin, Texas.

Manila Harbor Board, Manila, Philippine Islands.

Marine Biologist, Colombo, Ceylon.
Mediaeval Academy of America, Boulder, Colorado.

Mellon Institute of Industrial Research, Pittsburgh, Pennsylvania.

Mercantile Library Association, New York.

Ministerio de Industrias, Bogotá, Colombia.

Mountaineer Club, Seattle, Washington.

National Indian Association, Calcutta, India.

National Institute of Health, Washington, D.C.

National Land Use Planning Committee, Washington, D.C.

Parnassus, New York.

Pennsylvania Plastic Products, Pittsburgh, Pennsylvania.

Perkins Institute, Watertown, Massachusetts.

Polish Consulate, Chicago.

Prince of Wales Museum of West India, Bombay, India.

Riverside Public Library, Riverside, California.

Science Service, Washington, D.C.

Sociedad Cooperativa Limitada Pro-cultura Regional, Mexico City, Mexico.

Southern Methodist University, Dallas, Texas.

State Bureau of Mines and Geology, Butte, Montana.

Stone Publishing Company, New York.

Taylor Instrument Companies, Rochester, New York.

Topographical and Geological Survey, Harrisburg, Pennsylvania.

Union College, Schenectady, New York.

Union League Club, Chicago.

Vineyard Gazette, Edgartown, Massachusetts.

Western Reserve University, Cleveland, Ohio.

World Calendar Association, New York.

INDIVIDUALS

Altschuler, Brent, Louisville, Kentucky.

Ames, Oakes, Cambridge, Massachusetts.

Aminoff, Gregori, Alvsjö, Sweden.

Anderson, R. van V., Algiers, Algeria.

Arciniegas, German, Bogotá, Colombia.

Banesh, Bernard, Chicago.

Becking, R. G. M. Baas, Leiden, Netherlands.

Berger, E. W., Gainesville, Florida.

Bhatia, H. L., Pusa, India.

Blancou, Lucien, Limoges, France.

Brandstetter, Renward, Lucerne, Switzerland.

Breuil, L'Abbé Henri, Paris, France.

Bridges, Lucas, Vienna, Austria.

Brimley, C. S., Raleigh, North Carolina.

Brown, F. Martin.

Canals, José, Buenos Aires, Argentina.

Caso, Dr. Alfonso, Mexico City, Mexico.

Cook, Harold J., Agate, Colorado.

Cornell, Margaret, M. Chicago.

Dabbene, Roberto, Buenos Aires, Argentina.

Dieseldorff, E. P., Berlin, Germany.
Dixon, Roland B., Cambridge, Massachusetts.

Dunod, H., Paris, France.

Engloff, Gustav, Chicago.

Elmer, A. D. E., Manila, Philippine Islands.

Emerson, Dr. Alfred E., Chicago.

Ferguson, John C., Peiping, China.

Field, Henry, Chicago.

Field, Stanley, Chicago.

Firestone, Harvey S., Jr., Akron, Ohio.

Fontana, Mario A., Montevideo, Uruguay.

Frankenberg, Dr. G. V., Braunschweig, Germany.

Friedländer and Son, Berlin, Germany.

Furlong, Colonel Charles Wellington, Scituate, Massachusetts.

Gerhard, W. J., Chicago.

Gleason, Dr. Henry Allan, New York.

Goldring, Winifred, Portland, Maine.

Hachiauka, Marquis, Tokyo, Japan.

Hambly, Wilfrid D., Chicago.

- Harlow, William M., Syracuse, New York.
- Harshberger, Dr. John W., Philadelphia, Pennsylvania.
- Herter, Guillermo, Montevideo, Uruguay.
- Hicks, Lawrence E., Columbus, Ohio.
- Holmberg, Dr. Arne, Stockholm, Sweden.
- Hortling, Ivar, Helsingfors, Finland.
- Jouard, Henri, Dijon Côte d'Or, France.
- Kanehira, Ryoza, Fukuoka, Japan.
- Kesteven, H. Leighton, Bullahdelah, New South Wales, Australia.
- Kindle, E. M., Ottawa, Canada.
- King, Mrs. Joseph H., Chicago.
- Kinghorn, J. R., Sydney, Australia.
- Knappen, Theodore Macfarlane, Washington, D.C.
- Knoche, Dr. Walter, Santiago, Chile.
- Lambert, S. M., Sydney, Australia.
- Laufer, Dr. Berthold, Chicago.
- Laughlin, Harry H., Cold Spring Harbor, New York.
- Lewis, Dr. Albert B., Chicago.
- Lighthall, W. D., Montreal, Canada.
- Liljeblad, Emil, Chicago.
- Lilly, Josiah K., Indianapolis, Indiana.
- Lundell, C. L., Dallas, Texas.
- Marelli, Dr. Carlos, La Plata, Argentina.
- Matthey, R., Lausanne, Switzerland.
- Morse, Elizabeth Eaton, Berkeley, California.
- Müller, Lorenz, Munich, Germany.
- Netting, M. Graham, Pittsburgh, Pennsylvania.
- Nichols, Henry W., Chicago.
- Osgood, C. B., Ottawa, Canada.
- Osgood, Dr. Wilfred H., Chicago.
- Osten, Don Cornelio, Montevideo, Uruguay.
- Pack, Arthur Newton, Princeton, New Jersey.
- Park, Orlando, Urbana, Illinois.
- Patterson, Bryan, Chicago.
- Poole, Earl L., Reading, Pennsylvania.
- Porsild, M. P., Disko, Greenland.
- Poulsen, Chr., Copenhagen, Denmark.
- Pratt, Mrs. William E., Chicago.
- Procter, William, Bar Harbor, Maine.
- Putnam, Patrick Tracy Lowell, Bedford, New York.
- Raven, H. C., New York.
- Regnier, Robert, Marseilles, France.
- Riggs, Elmer S., Chicago.
- Ross, Mrs. Robert E., Chicago.
- Sandground, J. H., Boston, Massachusetts.
- Sarkar, Professor Benoy Kumar, Calcutta, India.
- Satlerthwait, A. F., Webster Groves, Missouri.
- Schaarming, H. T. L., Stavanger, Norway.
- Schaffer, David Nicholas.
- Schmidt, Karl P., Chicago.
- Schmidt, Richard, Berlin, Germany.
- Schoute, Dr. J. C., Gröningen, Netherlands.
- Sennen, F., Barcelona, Spain.
- Shaw, Te Hui, Kiangsi, China.
- Sherff, Dr. E. E., Chicago.
- Simms, Stephen C., Chicago.
- Simon and Simon Publishing Company, Chicago.
- Spivey, Thomas Sawyer, Beverly Hills, California.
- Standley, Paul C., Chicago.
- Thomas, Elsie Huber, Chicago.
- Thompson, J. Eric, Chicago.
- Treadwell, Professor Aaron L., Poughkeepsie, New York.
- Uphof, J. C. Th., Orlando, Florida.
- Valentine, Hazel M., Chicago.
- Vignato, Milciades Alyò, Buenos Aires, Argentina.
- Villacosta, J. Antonio and Carlos A., Guatemala City, Guatemala.
- Vincent, Edith, Chicago.
- Vladykov, Dr. Vadim D., Toronto, Canada.
- Watson, Rose J. Oak Park, Illinois.
- Williams, Llewelyn, Chicago.
- Wolcott, Albert B., Downers Grove, Illinois.
- Wu, Henry H., Chicago.
- Yu, Robert, Chicago.

FOUNDER

Marshall Field*

BENEFACTORS

Those who have contributed \$100,000 or more to the Museum

Ayer, Edward E.*	Field, Joseph N.*	Kelley, William V.*
Buckingham, Miss Kate S.	Field, Marshall	Pullman, George M.*
Crane, Cornelius	Field, Stanley	Raymond, Mrs. Anna Louise
Crane, R. T., Jr.*	Graham, Ernest R.	Raymond, James Nelson*
Field, Mrs. E. Marshall	Harris, Albert W.	Simpson, James
	Harris, Norman W.*	Sturges, Mrs. Mary D.*
	Higinbotham, Harlow N.*	

*DECEASED

HONORARY MEMBERS

Those who have rendered eminent service to Science

Breasted, Professor James H.	Field, Stanley	Rawson, Frederick H.
Chalmers, William J.	Graham, Ernest R.	Roosevelt, Kermit
Crane, Charles R.	Harris, Albert W.	Roosevelt, Theodore
Cutting, C. Suydam	Ludwig, H. R. H. Gustaf Adolf, Crown Prince of Sweden	Sargent, Homer E.
Field, Mrs. E. Marshall	McCormick, Stanley	Simpson, James
Field, Marshall		Sprague, Albert A.
		Vernay, Arthur S.

PATRONS

Those who have rendered eminent service to the Museum

Armour, Allison V.	Field, Mrs. E. Marshall	Payne, John Barton
Chadbourne, Mrs. Emily Crane	Field, Mrs. Stanley	Probst, Edward
Chancellor, Philip M.	Hancock, G. Allan	Rawson, Frederick H.
Cherrie, George K.	Insull, Samuel	Roosevelt, Kermit
Collins, Alfred M.	Kennedy, Vernon Shaw	Roosevelt, Theodore
Conover, Boardman	Knight, Charles R.	Sargent, Homer E.
Cummings, Mrs. Robert F.	Langdon, Professor Stephen	Smith, Mrs. George T.
Cutting, C. Suydam	Moore, Mrs. William H.	Strawn, Silas H.
Day, Lee Garnett		Vernay, Arthur S.
Ellsworth, Duncan S.		Wegeforth, Dr. Harry M.
		White, Harold A.
		White, Howard J.

DECEASED, 1933

Borland, Mrs. John Jay

CORRESPONDING MEMBERS

Scientists or patrons of science, residing in foreign countries, who have rendered eminent service to the Museum

Black, Dr. Davidson Breuil, Abbé Henri	Hochreutiner, Dr. B. P. Georges	Langdon, Professor Stephen
Diels, Dr. Ludwig	Keith, Professor Sir Arthur	Smith, Professor Grafton Elliot

CONTRIBUTORS

Those who have contributed \$1,000 to \$100,000 to the Museum in money or materials

<i>\$75,000 to \$100,000</i>	Gunsaulus, Dr. F. W.*	MacLean, Mrs. M. Haddon
Chancellor, Philip M.	Insull, Samuel	Moore, Mrs. William H.
Rawson, Frederick H.	McCormick, Cyrus (Estate)	Pearsons, D. K.* Porter, H. H.*
<i>\$50,000 to \$75,000</i>	McCormick, Stanley Mitchell, John J.*	Ream, Norman B.* Revell, Alexander H.*
Keep, Chauncey*	Reese, Lewis*	Salie, Prince M. U. M.
Rosenwald, Mrs. Augusta N.*	Robb, Mrs. George W.	Sargent, Homer E.
Ryerson, Martin A.*	Rockefeller Foundation, The	Sprague, A. A.* Strawn, Silas H.
<i>\$25,000 to \$50,000</i>	Schweppe, Mrs. Charles H.	Thorne, Bruce Tree, Lambert*
Blackstone, Mrs. Timothy B.*	Smith, Mrs. George T. Strong, Walter A.*	<i>\$1,000 to \$5,000</i>
Coats, John*	Wrigley, William, Jr.*	American Friends of China
Crane, Charles R.	<i>\$5,000 to \$10,000</i>	Ayer, Mrs. Edward E.*
Field, Mrs. Stanley	Adams, George E.* Adams, Milward*	Barrett, Samuel E. Bensabott, R., Inc. Blair, Watson F.* Blaschke, Stanley Field Borden, John
Jones, Arthur B.*	Bartlett, A. C.* Bishop, Heber (Estate) Borland, Mrs. John Jay*	Chalmers, Mrs. William J. Crane, Mrs. R. T., Jr. Cummings, Mrs. Robert F.
Porter, George F.*	Crane, R. T.* Doane, J. W.*	Doering, O. C. Field, Henry
Rosenwald, Julius*	Fuller, William A.*	Graves, Henry, Jr. Gunsaulus, Miss Helen
Vernay, Arthur S.	Graves, George Coe, II	Hibbard, W. G.* Higginson, Mrs. Charles M.
White, Harold A.	Harris, Hayden B. Harris, Norman Dwight Harris, Mrs. Norman W.* Hutchinson, C. L.*	Hill, James J.*
<i>\$10,000 to \$25,000</i>	Keith, Edson*	
Armour, Allison V. Armour, P. D.*	Langtry, J. C.	

*DECEASED

Hixon, Frank P.*	McCormick, Cyrus H.	Schwab, Martin C.
Hoffman, Miss Malvina	McCormick, Mrs. Cyrus*	Shaw, William W.
Hughes, Thomas S.		Sherff, Dr. Earl E.
Jackson, Huntington W.*	Ogden, Mrs. Frances E.*	Smith, Byron L.*
James, S. L.		Sprague, Albert A.
Lee Ling Yün	Palmer, Potter	Thompson, E. H.
	Patten, Henry J.	Thorne, Mrs. Louise E.
Mandel, Fred L., Jr.	Rauchfuss, Charles F.	VanValzah, Dr. Robert
Mandel, Leon	Raymond, Charles E.	VonFrantzius, Fritz*
Manierre, George*	Reynolds, Earle H.	
Martin, Alfred T.*	Ryerson, Mrs. Martin A.	Willis, L. M.

*DECEASED

CORPORATE MEMBERS

Armour, Allison V.	Field, Mrs. E. Marshall	Payne, John Barton
Borden, John	Field, Marshall	Probst, Edward
Byram, Harry E.	Field, Stanley	Rawson, Frederick H.
	Field, Mrs. Stanley	Richardson, George A.
Chadbourne, Mrs. Emily	Graham, Ernest R.	Roosevelt, Kermit
Crane		Roosevelt, Theodore
Chalmers, William J.	Hancock, G. Allan	Sargent, Homer E.
Chancellor, Philip M.	Harris, Albert W.	Simms, Stephen C.
Chatfield-Taylor, H. C.		Simpson, James
Cherrie, George K.	Insull, Samuel	Smith, Mrs. George T.
Collins, Alfred M.		Smith, Solomon A.
Conover, Boardman	Kennedy, Vernon Shaw	Sprague, Albert A.
Cummings, Mrs.	Knight, Charles R.	Strawn, Silas H.
Robert F.	Langdon, Professor	
Cutting, C. Suydam	Stephen	Vernay, Arthur S.
Day, Lee Garnett	McCormick, Cyrus H.	Wegeforth, Dr. Harry M.
Ellsworth, Duncan S.	Mitchell, William H.	White, Harold A.
	Moore, Mrs. William H.	White, Howard J.

DECEASED, 1933

Borland, Mrs. John Jay

LIFE MEMBERS

Those who have contributed \$500 to the Museum

Abbott, John Jay	Bacon, Edward	Booth, W. Vernon
Abbott, Robert S.	Richardson, Jr.	Borden, John
Adler, Max	Banks, Alexander F.	Borland, Chauncey B.
Alexander, William A.	Barrett, Mrs. A. D.	Boynton, Mrs. C. T.
Allerton, Robert H.	Barrett, Robert L.	Brassert, Herman A.
Ames, James C.	Bartlett, Miss Florence	Brewster, Walter S.
Armour, A. Watson	Dibell	Brown, Charles Edward
Armour, Allison V.	Baur, Mrs. Jacob	Browne, Aldis J.
Armour, Lester	Bendix, Vincent	Buchanan, D. W.
Armour, Mrs. Ogden	Bensabott, R.	Budd, Britton I.
Armstrong, Mrs. Frank H.	Bermingham, Edward J.	Buffington, Eugene J.
Asher, Louis E.	Billings, C. K. G.	Burnham, John
Avery, Sewell L.	Blaine, Mrs. Emmons	Burt, William G.
	Blair, Chauncey B.	Butler, Julius W.
Babcock, Frederick R.	Block, L. E.	Butler, Rush C.
Babson, Henry B.	Block, Philip D.	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, William J.
 Chalmers, Mrs. William J.
 Chatfield-Taylor, Wayne
 Clark, Eugene B.
 Clay, John
 Clegg, William G.
 Clegg, Mrs. William G.
 Clow, William E.
 Collins, William M.
 Conover, Boardman
 Cooke, George A.
 Corley, F. D.
 Cowles, Alfred
 Cramer, Corwith
 Cramer, E. W.
 Cramer, Mrs. Katharine S.
 Crane, Charles R.
 Crosssett, Edward C.
 Crossley, Lady Josephine
 Crossley, Sir Kenneth
 Crowell, H. P.
 Cudahy, Edward A.
 Cudahy, Edward A., Jr.
 Cudahy, Joseph M.
 Cunningham, Frank S.
 Cunningham, James D.
 Cushing, Charles G.
 Cutten, Arthur W.
 Dau, J. J.
 Davies, Mrs. D. C.
 Dawes, Charles G.
 Dawes, Henry M.
 Dawes, Rufus C.
 Decker, Alfred
 Delano, Frederic A.
 Dick, Albert Blake
 Dierssen, Ferdinand W.
 Dixon, George W.
 Dixon, Homer L.
 Donnelley, Thomas E.
 Doyle, Edward J.
 Drake, John B.
 Drake, Tracy C.
 Dreyfus, Moise
 Durand, Scott S.
 Eckstein, Louis
 Edmunds, Philip S.
 Epstein, Max
 Everitt, George B.
 Ewing, Charles Hull
 Farnum, Henry W.
 Farr, Newton Camp
 Farr, Miss Shirley
 Farwell, Arthur L.
 Farwell, Francis C.
 Farwell, John V.
 Farwell, Walter
 Fay, C. N.
 Fenton, Howard W.
 Fentress, Calvin
 Ferguson, Louis A.
 Fernald, Charles
 Field, Joseph Nash, II
 Field, Marshall
 Field, Norman
 Field, Mrs. Norman
 Field, Stanley
 Field, Mrs. Stanley
 Florsheim, Milton S.
 Gardner, Paul E.
 Gardner, Robert A.
 Gartz, A. F., Jr.
 Gary, Mrs. John W.
 Getz, George F.
 Gilbert, Huntly H.
 Glessner, John J.
 Glore, Charles F.
 Goddard, Leroy A.
 Goodman, William O.
 Goodrich, A. W.
 Goodspeed, Charles B.
 Gowing, J. Parker
 Graham, Ernest R.
 Griffiths, John
 Griscom, Clement A.
 Hack, Frederick C.
 Hamill, Alfred E.
 Hamill, Mrs. Ernest A.
 Harris, Albert W.
 Harris, Norman W.
 Haskell, Frederick T.
 Hastings, Samuel M.
 Hayes, William F.
 Hecht, Frank A., Jr.
 Hibbard, Frank
 Hickox, Mrs. Charles V.
 Hill, Louis W.
 Hinde, Thomas W.
 Hippach, Louis A.
 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
 Insull, Samuel, Jr.
 Jarnagin, William N.
 Jelke, John F., Jr.
 Johnson, Mrs. Elizabeth Ayer
 Joiner, Theodore E.
 Jones, Mrs. Arthur B.
 Jones, Miss Gwethalyn
 Kelley, Mrs. Daphne Field
 Kelley, Russell P.
 Kelly, D. F.
 Kidston, William H.
 King, Charles Garfield
 King, James G.
 Kirk, Walter Radcliffe
 Knickerbocker, Charles K.
 Kuppenheimer, Louis B.
 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
 MacVeagh, Franklin
 Madlener, Mrs. Albert F.
 Mark, Clayton
 Marshall, Benjamin H.
 Mason, William S.
 McCormick, Cyrus H.
 McCormick, Harold F.
 McCormick, Stanley
 McCutcheon, John T.
 McGann, Mrs. Robert G.
 McIlvaine, William B.
 McInnerney, Thomas H.
 McKinlay, John
 McKinlock, George Alexander
 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, Joy
 Morton, Mark
 Munroe, Charles A.
 Murphy, Walter P.
 Newell, A. B.
 Nikolas, G. J.
 Noel, Joseph R.

O'Brien, John J.	Rosenwald, William	Swift, Harold H.
Ormsby, Dr. Oliver S.	Runnells, Clive	Swift, Louis F.
Orr, Robert M.	Russell, Edmund A.	
	Russell, Edward P.	Thorne, Charles H.
Paesch, Charles A.	Ryerson, Edward L., Jr.	Thorne, Robert J.
Palmer, Honore	Ryerson, Mrs. Martin A.	Traylor, Melvin A.
Palmer, Potter		Tree, Ronald L. F.
Patten, Henry J.	Sargent, Fred Wesley	Tyson, Russell
Patten, Mrs. James A.	Schweppe, Charles H.	
Patterson, Joseph M.	Scott, George E.	Uihlein, Edgar J.
Payne, John Barton	Scott, Harold N.	Underwood, Morgan P.
Payson, George S.	Seabury, Charles W.	
Peabody, Augustus S.	Shaffer, John C.	Valentine, Louis L.
Peabody, Stuyvesant	Shirk, Joseph H.	Veatch, George L.
Perkins, Herbert F.	Simpson, James	Viles, Lawrence M.
Pick, Albert	Simpson, William B.	
Pike, Charles B.	Smith, Alexander	Wanner, Harry C.
Pike, Eugene R.	Smith, Solomon A.	Ward, F. C.
Poppenhusen, Conrad H.	Spalding, Keith	Weber, David
Porter, Frank W.	Spalding, Vaughan C.	Welch, Mrs. Edwin P.
Porter, Gilbert E.	Sprague, Albert A.	Welling, John P.
	Sprague, Mrs. Albert A.	Whitney, Mrs. Julia L.
Rawson, Frederick H.	Stern, Mrs. Alfred K.	Wickwire, Mrs. Edward L.
Raymond, Mrs. Anna	Stevens, Eugene M.	Wieboldt, William A.
Louise	Stewart, Robert W.	Willard, Alonzo J.
Rea, Mrs. Robert L.	Stirton, Robert C.	Willits, Ward W.
Reynolds, Arthur	Storey, W. B.	Wilson, John P.
Reynolds, Earle H.	Strawn, Silas H.	Wilson, Thomas E.
Reynolds, George M.	Stuart, Harry L.	Wilson, Walter H.
Riley, Harrison B.	Stuart, John	Winston, Garrard B.
Robinson, Theodore W.	Stuart, R. Douglas	Winter, Wallace C.
Robson, Miss Alice	Sturges, George	Woolley, Clarence M.
Rodman, Mrs. Katherine	Sunny, B. E.	Wrigley, Philip K.
Field	Swift, Charles H.	
Rodman, Thomas Clifford	Swift, G. F., Jr.	Yates, David M.

DECEASED, 1933

Aldis, Arthur T.	Day, Albert M.	Lord, John B.
		Lytton, George
Carton, L. A.	Farrington, Dr. Oliver C.	Piez, Charles
Clegg, Mrs. Henry G.	Hinkley, James Otis	Porter, H. H.
Coolbaugh, Miss	Hurley, Edward N.	
Wilhelmine F.	Legge, Alexander	Warner, Ezra Joseph

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.	Hearne, Knox	Stephens, W. C.
Copley, Ira Cliff	Rosenwald, Lessing J.	Stern, Mrs. Edgar B.
Ellis, Ralph, Jr.		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, William L.
 Abbott, W. Rufus
 Abrams, Professor Duff A.
 Ackerman, Charles N.
 Adamick, Gustav H.
 Adams, Benjamin Stearns
 Adams, Mrs. Frances
 Sprogile
 Adams, John Q.
 Adams, Joseph
 Adams, Mrs. S. H.
 Adams, Mrs. Samuel
 Adams, William C.
 Adcock, Mrs. Bessie
 Addleman, Samuel W.
 Adler, David
 Adler, Mrs. Max
 Affleck, Benjamin F.
 Ahlschlager, Walter W.
 Albee, Mrs. Harry W.
 Allais, Arthur L.
 Allbright, William B.
 Allen, Mrs. Fred G.
 Allensworth, A. P.
 Alling, Mrs. C. A.
 Alling, Mrs. VanWagenen
 Allison, Mrs. Nathaniel
 Almes, Dr. Herman E.
 Alschuler, Alfred S.
 Alsip, Charles H.
 Alter, Harry
 Alton, Carol W.
 Andersen, Arthur
 Anderson, Miss Florence
 Regina
 Andreen, Otto C.
 Andrews, Alfred B.
 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, Philip D.
 Armstrong, Arthur W.
 Armstrong, Mrs. Julian
 Arn, W. G.
 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, Henry W.
 Avery, Miss Clara
 Baackes, Mrs. Frank
 Babb, W. E.
 Babson, Fred K.
 Bach, Julius H.
 Bachmann, Dr. Harrold A.
 Badger, Shreve Cowles
 Baer, Mervin K.
 Baer, Walter S.
 Baggaley, William Blair
 Bailey, Mrs. Edward W.
 Baird, Mrs. Clay
 Baird, Harry K.
 Baker, Mrs. Alfred L.
 Baker, Greeley
 Baldwin, Vincent Curtis
 Baldwin, William W.
 Balgemann, Otto W.
 Balkin, Louis
 Ball, Dr. Fred E.
 Ball, Sidney Y.
 Ballard, Thomas L.
 Ballenberg, Adolph G.
 Bannister, Miss Ruth D.
 Bantsolas, John N.
 Barber, Phil C.
 Barbour, Harry A.
 Barbour, James J.
 Barley, Miss Matilda A.
 Barnes, Cecil
 Barnes, Mrs. Charles
 Osborne
 Barnes, James M.
 Barnett, Otto R.
 Barnhart, Mrs. A. M.
 Barnhart, Mrs. Clara S.
 Barnhart, Miss Gracia
 M. F.
 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.
 Bastian, Charles L.
 Bateman, Floyd L.
 Bates, Mrs. A. M.
 Bates, Joseph A.
 Battey, Paul L.
 Bauer, Aleck
 Baum, Mrs. James E.
 Baum, Mervyn
 Baumrucker, Charles F.
 Bausch, William C.
 Beach, Miss Bess K.
 Beach, E. Chandler
 Beachy, Mrs. P. A.
 Beacom, Harold
 Beatty, H. W.
 Beck, Herbert
 Becker, Mrs. A. G.
 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
 Bellinghausen, Miss Celia
 Bender, C. J.
 Benjamin, Jack A.
 Benner, Harry
 Bennett, J. Gardner
 Bensingner, Benjamin E.
 Benson, John
 Bentley, Arthur
 Bentley, Mrs. Cyrus
 Benton, Miss Mabel M.
 Berend, George F.
 Berkowitz, Dr. J. G.
 Berndt, Dr. George W.
 Berryman, John B.
 Bersbach, Elmer S.
 Bertschinger, Dr. C. F.
 Besly, Mrs. C. H.
 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.
 Bishop, Howard P.
 Bishop, Mrs. Martha V.
 Bistor, James E.
 Bittel, Mrs. Frank J.

- Bixby, Edward Randall
 Black, Dr. Arthur D.
 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
 Bletsch, William E.
 Blish, Sylvester
 Block, Emanuel J.
 Blome, Rudolph S.
 Blomgren, Dr. Walter L.
 Bloom, Mrs. Leopold
 Bluford, Mrs. David
 Blum, David
 Blum, Harry H.
 Blunt, J. E., Jr.
 Bluthardt, Edwin
 Boal, Ayres
 Bode, William F.
 Bodman, Mrs. Luther
 Boericke, Mrs. Anna
 Boettcher, Arthur H.
 Bohasseck, Charles
 Bohn, Mrs. Bertha
 Bowlby
 Bolten, Paul H.
 Bondy, Berthold
 Boomer, Dr. Paul C.
 Boorn, William C.
 Booth, Alfred V.
 Booth, George E.
 Borg, George W.
 Borland, Mrs. Bruce
 Born, Moses
 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
 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
 Brennwasser, S. M.
 Brenza, Miss Mary
 Brewer, Mrs. Angeline L.
 Breyer, Mrs. Theodor
 Bridge, George S.
 Briggs, Mrs. Gertrude
 Brigham, Miss Florence M.
 Bristol, James T.
 Brock, A. J.
 Brodribb, Lawrence C.
 Broome, Thornhill
 Brown, A. Wilder
 Brown, Benjamin R.
 Brown, Charles A.
 Brown, Christy
 Brown, Dr. Edward M.
 Brown, Mrs. George
 Dewes
 Brown, Mrs. Henry
 Temple
 Brown, John T.
 Brown, Scott
 Bruckner, William T.
 Brugman, John J.
 Brundage, Avery
 Brunswick, Larry
 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.
 Bullock, Carl C.
 Bullock, Mrs. James E.
 Bunge, Mrs. Albert J.
 Burgess, Charles F.
 Burgstreser, Newton
 Burgweger, Mrs. Meta
 Dewes
 Burke, Mrs. Lawrence N.
 Burke, Webster H.
 Burkholder, Dr. J. F.
 Burnham, Mrs. Edward
 Burns, Mrs. Randall W.
 Burrows, Mrs. W. F.
 Burry, Mrs. William
 Burry, William, Jr.
 Burch, Almon
 Burton, Mrs. Ernest D.
 Bush, Mrs. Lionel E.
 Bush, Mrs. William H.
 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. E.
 Cahn, Dr. Alvin R.
 Cahn, Bertram J.
 Cahn, Morton D.
 Caldwell, C. D.
 Caldwell, Mrs. F. C.
 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.
 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
 Cary, Dr. Frank
 Case, Elmer G.
 Casey, Mrs. James J.
 Casselberry, Mrs. William
 Evans, Sr.
 Cassels, Edwin H.
 Castle, Alfred C.
 Castruccio, Giuseppe

- Cates, Dudley
 Cernoch, Frank
 Chadwick, Charles H.
 Chandler, Henry P.
 Chapin, Henry Kent
 Chapman, Arthur E.
 Chappell, Mrs. Charles H.
 Chase, Frank D.
 Cheever, Mrs. Arline V.
 Cheney, Dr. Henry W.
 Chisholm, George D.
 Chislett, Miss Kate E.
 Critten, George A.
 Churan, Charles A.
 Clark, Ainsworth W.
 Clark, Miss Alice Keep
 Clark, Charles V.
 Clark, Mrs. Dorothy S.
 Clark, Mrs. Edward S.
 Clark, Edwin H.
 Clark, Dr. Peter S.
 Clarke, Charles F.
 Clarke, Fred L.
 Clarke, Harley L.
 Clas, Miss Mary Louise
 Clemen, Dr. Rudolf A.
 Cleveland, Paul W.
 Clifford, F. J.
 Clinch, Duncan L.
 Clough, William H.
 Clow, Mrs. Harry B.
 Clow, William E., Jr.
 Cochran, John L.
 Cohen, George B.
 Cohen, Mrs. L. Lewis
 Colburn, Frederick S.
 Colby, Mrs. George E.
 Coldren, Clifton C.
 Coleman, Dr. George H.
 Coleman, Loring W., Jr.
 Coleman, William Ogden
 Colianni, Paul V.
 Collins, Beryl B.
 Collis, Harry J.
 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., Jr.
 Cook, Mrs. Wallace L.
 Cooke, Charles E.
 Cooke, Miss Flora
 Cooke, Leslie L.
 Coolidge, Miss Alice
 Coolidge, E. Channing
 Coombs, James F.
 Coonley, John Stuart, Jr.
 Coonley, Prentiss L.
 Cooper, Samuel
 Copland, David
 Corbett, Mrs. William J.
 Cormack, Charles V.
 Cornell, John E.
 Cosford, Thomas H.
 Coston, James E.
 Counselman, Mrs.
 Jennie E.
 Courvoisier, Dr. Earl A.
 Cox, Mrs. Howard M.
 Cox, James A.
 Cox, James C.
 Cox, Mrs. Rensselaer W.
 Crane, Charles R., II
 Cratty, Mrs. Josiah
 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
 Cuneo, John F.
 Cunningham, Mrs.
 Howard J.
 Cunningham, John T.
 Curran, Harry R.
 Curtis, Austin Guthrie,
 Jr.
 Curtis, Mrs. Charles S.
 Curtis, Miss Frances H.
 Cusack, Harold
 Cushing, John F.
 Cushman, A. W.
 Cutler, Henry E.
 Cutting, Charles S.
 Dahlberg, Bror G.
 Daily, Richard
 Dakin, Dr. Frank C.
 Daley, Harry C.
 Dammann, J. F.
 D'Ancona, Edward N.
 Danforth, Dr. William C.
 Daniels, H. L.
 Dantzig, Leonard P.
 Danz, Charles A.
 Darrow, William W.
 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, Abel
 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.
 Deagan, John C.
 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.
 Denkewalter, W. E.
 Denman, Mrs. Burt J.
 Dennehy, Thomas C.
 Dennis, Charles H.
 Dent, George C.
 Deutsch, Mrs. Percy L.
 DeVries, David
 DeVries, Peter
 Dewes, Rudolph Peter
 Dewey, Albert B., Sr.
 Dick, Albert B., Jr.
 Dick, Elmer J.
 Dick, Mrs. Homer T.
 Dickey, Roy
 Dickinson, F. R.
 Dickinson, Robert B.
 Dickinson, Mrs. W.
 Woodbridge
 Diestel, Mrs. Herman
 Dikeman, Aaron Butler
 Dillon, Miss Hester May
 Dimick, Miss Elizabeth
 Dixon, Alan C.
 Dixon, William Warren
 Dobson, George
 Doctor, Isidor
 Dodge, Mrs. Paul C.
 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
 Donnelley, Mrs. R. R.
 Donnelly, Frank
 Donohue, Edgar T.
 Douglas, James H., Jr.
 Douglass, Kingman
 Douglass, W. A.
 Dreiske, George J.
 Drummond, James J.
 Dryden, Mrs. George B.
 Dubbs, C. P.
 Dudley, Laurence H.
 Dugan, Alphonso G.
 Dulany, George W., Jr.
 Dulsky, Mrs. Samuel
 Duncan, Albert G.
 Duner, Dr. Clarence S.
 Duner, Joseph A.
 Dunham, John H.
 Dunham, Miss Lucy Belle
 Dunham, Robert J.
 Dunlop, Mrs. Simpson
 Dupee, Mrs. F. Kennett
 Durbin, Fletcher M.
 Dyche, William A.
 Easterberg, C. J.
 Eastman, Mrs. George H.
 Ebeling, Frederic O.
 Eckhart, Mrs. B. A.
 Eckhart, Percy B.
 Eckstein, H. G.
 Eddy, George A.
 Eddy, Thomas H.
 Edmonds, Harry C.
 Edwards, Miss Edith E.
 Edwards, Kenneth P.
 Egan, William B.
 Ehrman, Edwin H.
 Eiger, Oscar S.
 Eiselen, Dr. Frederick
 Carl
 Eisendrath, Edwin W.
 Eisendrath, Robert M.
 Eisendrath, Mrs.
 William N.
 Eisenschiml, Mrs. Otto
 Eisenstaedt, Harry
 Eisenstein, Sol
 Eitel, Max
 Elcock, Edward G.
 Elenbogen, Herman
 Ellbogen, Albert L.
 Elliot, Mrs. Frank M.
 Elliott, Dr. Charles A.
 Elliott, Frank R.
 Ellis, Howard
 Elting, Howard
 Ely, Mrs. C. Morse
 Engel, E. J.
 Engelhard, Benjamin M.
 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, Hon. Evan A.
 Ewell, C. D.
 Ewen, William R. T.
 Fabian, Francis G.
 Fabry, Herman
 Fackt, Mrs. George P.
 Fader, A. L.
 Faget, James E.
 Faherty, Roger
 Fahrenwald, Frank A.
 Fahrney, Emery H.
 Faithorn, Walter E.
 Falk, Miss Amy
 Farnham, Mrs. Harry J.
 Farrell, Mrs. B. J.
 Farrell, Rev. Thomas F.
 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.
 Ferguson, William H.
 Fernald, Robert W.
 Fetcher, Edwin S.
 Fetzer, Wade
 Filek, August
 Finley, Max H.
 Finn, Joseph M.
 Finnerud, Dr. Clark W.
 Fischel, Frederic A.
 Fish, Mrs. Isaac
 Fishbein, Dr. Morris
 Fisher, Mrs. Edward
 Metcalf
 Fisher, George P.
 Fisher, Hon. Harry M.
 Fisher, Walter L.
 Fitzpatrick, Mrs. John A.
 Flavin, Edwin F.
 Flesch, Eugene W. P.
 Flexner, Washington
 Florsheim, Irving S.
 Florsdorf, Mrs. G. E.
 Foley, Rev. William M.
 Follansbee, Mitchell D.
 Folonie, Mrs. Robert J.
 Folsom, Mrs. Richard S.
 Foote, Peter
 Foreman, Mrs. Alfred K.
 Foreman, Mrs. E. G.
 Foreman, Edwin G., Jr.
 Foreman, Harold E.
 Foresman, Mrs. W. Coates
 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
 Foster, Mrs. William C.
 Fowler, Miss Elizabeth
 Fox, Charles E.
 Fox, Jacob Logan
 Fox, Dr. Paul C.
 Frank, Dr. Ira
 Frank, Mrs. Joseph K.
 Frankenstein, Rudolph
 Frankenstein, William B.
 Frankenthal, Dr. Lester
 E., Jr.
 Frazer, Mrs. George E.
 Freedman, Dr. I. Val
 Freeman, Charles Y.
 Freeman, Walter W.
 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
 Friedlund, Mrs. J. Arthur
 Friedman, Mrs. Isaac K.
 Friedman, Oscar J.
 Friend, Mrs. Henry K.
 Friedstedt, Arthur A.
 Frisbie, Chauncey O.
 Frost, Mrs. Charles

- Fuller, Mrs. Charles
 Fuller, Mrs. Gretta
 Patterson
 Fuller, Judson M.
 Fuller, Leroy W.
 Furry, William S.
 Furst, Eduard A.
- Gabathuler, Miss Juanita
 Gabriel, Charles
 Gaertner, William
 Gale, G. Whittier
 Gale, Henry G.
 Gall, Charles H.
 Gall, Harry T.
 Gallagher, Vincent G.
 Gallup, Rockwell
 Galt, Mrs. A. T.
 Galvin, William A.
 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.
 Garner, Harry J.
 Garrison, Dr. Lester E.
 Gary, Fred Elbert
 Gately, Ralph M.
 Gawne, Miss Clara J.
 Gay, Rev. A. Royal
 Gaylord, Duane W.
 Gear, H. B.
 Gehl, Dr. W. H.
 Gehrman, Felix
 George, Mrs. Albert B.
 George, Fred W.
 Gerding, R. W.
 Geringer, Charles M.
 Gerngross, Mrs. Leo
 Gerrity, Thomas
 Gerts, Walter S.
 Gettelman, Mrs. Sidney H.
 Getzoff, E. B.
 Gibbs, Dr. John Phillip
 Gibson, Dr. Stanley
 Gielow, Walter C.
 Giffert, Mrs. William
 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.
 Glaser, Edward L.
- Glasgow, H. A.
 Glasner, Rudolph W.
 Glenn, Mrs. J. M.
 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.
 Goldstine, Dr. Mark T.
 Goldy, Walter I.
 Goode, Mrs. Rowland T.
 Gooden, G. E.
 Goodkind, Dr. Maurice L.
 Goodman, Benedict K.
 Goodman, Mrs. Herbert E.
 Goodman, W. J.
 Goodman, William E.
 Goodrow, William
 Goodwin, Hon. Clarence
 Norton
 Goodwin, George S.
 Gordon, Harold J.
 Gordon, Mrs. Robert D.
 Gorham, Sidney Smith
 Gorman, George E.
 Gorrell, Mrs. Warren
 Gradle, Dr. Harry S.
 Grady, Dr. Grover Q.
 Graf, Robert J.
 Graf, Oscar C.
 Graham, Douglas
 Graham, E. V.
 Graham, Miss
 Margaret H.
 Gramm, Mrs. Helen
 Granger, Alfred
 Grant, Alexander R.
 Grant, James D.
 Grant, John G.
 Graves, Howard B.
 Gray, Mrs. Charles W.
 Gray, Rev. James M.
 Green, J. B.
 Green, Miss Mary Pomeroy
 Green, Robert D.
 Green, Zola C.
 Greenberg, Andrew H.
 Greenburg, Dr. Ira E.
 Greene, Carl D.
 Greenebaum, James E.
 Greenebaum, M. E.
 Greenebaum, M. E., Jr.
 Greenlee, James A.
 Greenlee, Mrs. William
 Brooks
 Greenman, Mrs. Earl C.
 Gregory, Clifford V.
 Gregory, Stephen S., Jr.
 Gregory, Tappan
 Grey, Charles F.
- Grey, Dr. Dorothy
 Grey, Howard G.
 Griest, Mrs. Marianna L.
 Griffenhagen, Mrs.
 Edwin O.
 Griffith, Mrs. Carroll L.
 Griffith, E. L.
 Griffith, Melvin L.
 Griffith, Mrs. William
 Griffiths, George W.
 Grimm, Walter H.
 Griswold, Harold T.
 Grizzard, James A.
 Gronkowski, Rev. C. I.
 Groot, Cornelius J.
 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.
 Gulbrandsen, Axel G.
 Gulick, John H.
 Gundlach, Ernest T.
 Gunthorp, Walter J.
 Gwinn, William R.
- Haas, Maurice
 Haas, Dr. Raoul R.
 Hadley, Mrs. Edwin M.
 Hagen, Mrs. Daise
 Hagen, Fred J.
 Hagens, Dr. Garrett J.
 Haggard, John D.
 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, Edward F.
 Hammerschmidt, Mrs.
 George F.
 Hammitt, Miss Frances M.
 Hammond, Thomas S.
 Hand, George W.

- Hanley, Henry L.
 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.
 Harris, Miss Martha E.
 Hart, Mrs. Herbert L.
 Hart, William M.
 Hartmann, A. O.
 Hartshorn, Kenneth L.
 Hartwell, Fred G.
 Hartwig, Otto J.
 Harvey, Hillman H.
 Harvey, Richard M.
 Harwood, Thomas W.
 Haskell, Mrs. George E.
 Haugan, Charles M.
 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.
 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.
 Heidke, Herman L.
 Heiman, Marcus
 Heine, Mrs. Albert
 Heineman, Oscar
 Heinzelman, Karl
 Heinzen, Mrs. Carl
 Heldmaier, Miss Marie
 Helfrich, J. Howard
 Heller, Albert
 Heller, John A.
 Heller, Mrs. Walter E.
 Hellman, George A.
 Hellyer, Walter
 Hemmens, Mrs. Walter P.
 Hemple, Miss Anne C.
 Henderson, Thomas B. G.
 Henkel, Frederick W.
 Henley, Eugene H.
 Hennings, Mrs.
 Abraham J.
 Henry, Huntington B.
 Henry, Otto
 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.
 Hess, Mrs. Charles Wilbur
 Heun, Arthur
 Heverly, Earl L.
 Heyworth, Mrs. James O.
 Hibbard, Mrs. Angus S.
 Hibbard, Mrs. W. G.
 Higgins, John
 Higgins, John W.
 Higinbotham, Harlow D.
 Higley, Mrs. Charles W.
 Hildebrand, Eugene, Jr.
 Hildebrand, Grant M.
 Hill, Mrs. E. M.
 Hill, Mrs. Lysander
 Hill, Mrs. Russell D.
 Hill, William E.
 Hille, Dr. Hermann
 Hillebrecht, Herbert E.
 Hillis, Dr. David S.
 Himrod, Mrs. Frank W.
 Hindman, Biscoe
 Hinkle, Ross O.
 Hinman, Mrs. Estelle S.
 Hinrichs, Henry, Jr.
 Hinsberg, Stanley K.
 Hinton, E. W.
 Hintz, John C.
 Hird, Frederick H.
 Hirsch, Jacob H.
 Hiscox, Morton
 Histed, J. Roland
 Hoelscher, Herman M.
 Hoffman, Glen T.
 Hoffmann, Miss Caroline
 Dickinson
 Hoffmann, Edward
 Hempstead
 Hogan, Frank
 Hogan, Robert E.
 Hohman, Dr. E. H.
 Hoier, William V.
 Holden, Edward A.
 Holland, Dr. William E.
 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.
 Honnold, Dr. Fred C.
 Honsik, Mrs. James M.
 Hoover, F. E.
 Hoover, Mrs. Fred W.
 Hoover, H. Earl
 Hoover, Ray P.
 Hope, Alfred S.
 Hopkins, Farley
 Hopkins, Mrs. James M.
 Hopkins, John L.
 Horan, Dennis A.
 Horcher, William W.
 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, Harold A.
 Howard, Willis G.
 Howe, Charles Arthur
 Howe, Clinton W.
 Howe, Warren D.
 Howe, William G.
 Howell, Albert S.
 Howell, William
 Howse, Richard
 Hoyne, Frank G.
 Hoyne, Thomas Temple
 Hoyt, Frederick T.
 Hoyt, Mrs. Phelps B.
 Hubbard, George W.
 Huber, Dr. Harry Lee
 Hudson, Mrs. H. Newton
 Hudson, Walter L.
 Hudson, William E.
 Huey, Mrs. A. S.
 Huff, Thomas D.
 Hughes, John E.
 Hughes, John W.
 Hulbert, Mrs. Charles
 Pratt
 Hulbert, Mrs. Milan H.
 Hultgen, Dr. Jacob F.
 Hume, John T.
 Huncke, Herbert S.
 Huncke, Oswald W.
 Hunter, Samuel M.

- Hurley, Edward N., Jr.
 Huston, W. L.
 Huston, Ward T.
 Huszagh, R. LeRoy
 Huszagh, Ralph D.
 Hutchinson, Foye P.
 Hutchinson, John W.
 Hutchinson, Samuel S.
 Hynes, Rev. J. A.
- 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.
 Jacobi, Miss Emily C.
 Jacobs, Hyman A.
 Jacobs, Julius
 Jacobs, Louis G.
 Jacobs, Siegfried T.
 Jacobson, Raphael
 Jaeger, George J., Jr.
 Jaffe, Dr. Richard
 Herman
 Jaffray, Mrs. David S., Jr.
 James, Edward P.
 James, William R.
 Jameson, Clarence W.
 Janusch, Fred W.
 Jarchow, Charles C.
 Jarratt, Mrs. Walter J.
 Jefferies, F. L.
 Jeffery, Mrs. Thomas B.
 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, Albert M.
 Johnson, Alvin O.
 Johnson, Arthur L.
 Johnson, Mrs. Harley
 Alden
 Johnson, Isaac Horton
 Johnson, Joseph F.
 Johnson, Nels E.
 Johnson, Mrs. O. W.
 Johnson, Olaf B.
 Johnson, Philip C.
- Johnson, Ulysses G.
 Johnston, Arthur C.
 Johnston, Edward R.
 Johnston, Mrs. Hubert
 McBean
 Johnston, Mrs. M. L.
 Johnstone, Dr. A. Ralph
 Johnstone, George A.
 Johnstone, Dr. Mary
 M. S.
 Jones, Albert G.
 Jones, G. Herbert
 Jones, James B.
 Jones, Dr. Margaret M.
 Jones, Melvin
 Jones, Warren G.
 Joseph, Louis L.
 Joy, Guy A.
 Joyce, David G.
 Joyce, Joseph
 Judah, Noble Brandon
 Judah, Mrs. Noble
 Brandon
 Juergens, H. Paul
 Julien, Victor R.
 Junkunc, Stephen
- Kaercher, A. W.
 Kahn, Gus
 Kahn, J. Kesner
 Kahn, Louis
 Kaine, James B.
 Kane, Jerome M.
 Kaplan, Nathan D.
 Karpen, Adolph
 Karpen, Michael
 Kaspar, Otto
 Katz, Mrs. Sidney L.
 Katzenstein, Mrs.
 George P.
 Kauffman, Mrs. R. K.
 Kauffmann, Alfred
 Kavanagh, Maurice F.
 Kay, Mrs. Marie E.
 Keefe, Mrs. George I.
 Keehn, George W.
 Keehn, Mrs. Theodore
 C. L.
 Keene, Mrs. Joseph
 Keeney, Albert F.
 Kehl, Robert Joseph
 Keith, Stanley
 Kelker, Rudolph F., Jr.
 Kellogg, John L.
 Kellogg, Mrs. M. G.
 Kelly, Edward T.
 Kelly, James J.
 Kemp, Mrs. E. M.
 Kempner, Harry B.
 Kempner, Stan
 Kendall, Mrs. Virginia H.
 Kendrick, John F.
- Kennedy, Miss Leonore
 Kennelly, Martin H.
 Kent, Dr. O. B.
 Keogh, Gordon E.
 Kern, Trude
 Kersey, Glen B.
 Kesner, Jacob L.
 Kilbourne, L. B.
 Kile, Miss Jessie J.
 Kimbark, Mrs. Eugene
 Underwood
 Kimbark, John R.
 King, Joseph H.
 Kingman, Mrs. Arthur G.
 Kinney, Mrs. Minnie B.
 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.
 Klink, A. F.
 Knox, Harry S.
 Knutson, George H.
 Koch, Paul W.
 Kochs, August
 Kochs, Mrs. Robert T.
 Kohl, Mrs. Caroline L.
 Kohler, Eric L.
 Kohlsaas, Edward C.
 Komiss, David S.
 Komberg, Alvin V.
 Kopf, William P.
 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.
 Krause, John J.
 Kretschmer, Dr.
 Herman L.

- Kritchevsky, Dr. Wolf
 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
 Kurtzon, Morris
- Lacey, Miss Edith M.
 LaChance, Mrs.
 Leander H.
 Laffin, Mrs. Louis E.
 Laffin, Louis E., Jr.
 LaGuske, Mrs. Chester
 Lampert, Mrs. Lydia
 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
 Langland, James
 Langworthy, Benjamin
 Franklin
 Lansinger, Mrs. John M.
 Larimer, Howard S.
 Larson, Bror O.
 Lashley, Mrs. Karl S.
 Lasker, Albert D.
 Lau, Max
 Lauren, Newton B.
 Lauritzen, C. M.
 Lauter, Mrs. Vera
 Lautmann, Herbert M.
 Lavezzorio, Mrs. J. B.
 Lawless, Dr. Theodore K.
 Lawson, A. J.
 Lawson, Mrs. Iver N.
 Lawton, Frank W.
 Laylander, O. J.
 Leahy, Thomas F.
 Learned, Edwin J.
 Leavell, James R.
 Leavitt, Mrs. Wellington
 Lebensohn, Dr. Mayer H.
 Lebolt, John Michael
 Lederer, Dr. Francis L.
 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.
 LeMoon, A. R.
 Lenz, J. Mayo
 Leonard, Arthur G.
 Leonard, Arthur T.
 Leopold, Foreman N.
 Leslie, John H.
 Letts, Mrs. Frank C.
 Levan, Rev. Thomas F.
 Leverone, Louis E.
 Levinson, Mrs. Salmon O.
 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.
 Lindley, Mrs. Arthur F.
 Lindquist, J. E.
 Lingle, Bowman C.
 Linton, Ben B.
 Lipman, Robert R.
 Liss, Samuel
 Littler, Harry E., Jr.
 Livingston, Julian M.
 Livingston, Mrs. Milton L.
 Llewellyn, Mrs. John T.
 Llewellyn, Paul
 Lloyd, Edward W.
 Lloyd, William Cross
 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, John I.
 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.
 Luehr, Dr. Edward
 Lufkin, Wallace W.
 Luria, Herbert A.
 Lurie, H. J.
 Lustgarten, Samuel
 Lutter, Henry J.
 Lydon, Mrs. William A.
 Lyford, Harry B.
 Lyford, Will H.
 Lynch, William Joseph
 Lyon, Charles H.
 Lyon, Frank R.
 Lyon, Mrs. Thomas R.
- Maass, J. Edward
 Mabee, Mrs. Melbourne
 MacCardle, H. B.
 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.
 Magill, Robert M.
 Magnus, Albert, Jr.
 Magnus, August C.
 Magwire, Mrs. Mary F.
 Maher, Mrs. D. W.
 Main, Walter D.
 Malone, William H.
 Manaster, Harry
 Mandel, Mrs. Aaron W.
 Mandel, Edwin F.
 Mandel, Mrs. Emanuel
 Mandel, Mrs. Frederick L.
 Mandel, Mrs. Robert
 Mandl, Sidney
 Manegold, Mrs. Frank W.
 Maniere, Francis E.
 Manierre, Louis
 Manley, John A.
 Mann, Albert C.
 Mann, John P.
 Manson, David
 Mansure, Edmund L.
 Marcus, Maurice S.
 Marhoefer, Edward H.
 Mark, Mrs. Cyrus
 Marks, Arnold K.
 Marquis, A. N.
 Marsh, A. Fletcher

- Marsh, Mrs. John P.
 Marsh, Mrs. Marshall S.
 Martin, Mrs. Franklin H.
 Martin, Samuel H.
 Martin, W. B.
 Martin, Wells
 Marx, Frederick Z.
 Marzluff, Frank W.
 Marzola, Leo A.
 Mason, Willard J.
 Masee, B. A.
 Massey, Peter J.
 Mathesius, Mrs. Walther
 Matson, J. Edward
 Matter, Mrs. John
 Matthiessen, Frank
 Matz, Mrs. Rudolph
 Maurer, Dr. Siegfried
 Maxwell, Lloyd R.
 Mayer, Mrs. David
 Mayer, Isaac H.
 Mayer, Oscar F.
 Mayer, Theodore S.
 McAuley, John E.
 McBirney, Mrs. Hugh J.
 McBride, Mrs. Walter J.
 McCarthy, Edmond J.
 McCarthy, Joseph W.
 McClellan, Dr. John H.
 McCluer, William
 Bittinger
 McClun, John M.
 McCord, Downer
 McCormack, Professor
 Harry
 McCormick, Mrs.
 Alexander A.
 McCormick, Mrs.
 Chauncey
 McCormick, Fowler
 McCormick, Howard H.
 McCormick, L. Hamilton
 McCormick, Leander J.
 McCormick, Robert
 H., Jr.
 McCoy, Herbert N.
 McCracken, Miss Willietta
 McCrea, Mrs. W. S.
 McCready, Mrs. E. W.
 McDougal, Mrs. James B.
 McDougal, Mrs. Robert
 McDougall, Mrs.
 Arthur R.
 McErlean, Charles V.
 McGarry, John A.
 McGraw, Max
 McGurn, Mathew S.
 McHugh, Mrs. Grover
 McIntosh, Arthur T.
 McIntosh, Mrs. Walter G.
 McKay, James M.
 McKeever, Buell
 McKinney, Mrs. Hayes
 McLaury, Mrs. C. W.
 McLaury, Walker G.
 McLennan, Mrs. John A.
 McMenemy, L. T.
 McMillan, John
 McMillan, W. B.
 McMillan, William M.
 McNamara, Louis G.
 McNulty, Joseph D.
 McQuarrie, Mrs. Fannie
 McVoy, John M.
 Medsker, Dr. Ora L.
 Melchione, Joseph
 Melendy, Dr. R. A.
 Melnick, Leopold B.
 Merrill, Henry S.
 Merrill, James S.
 Merrill, William W.
 Merz, Edward E.
 Metz, Dr. A. R.
 Metzler, Mrs. Albert J.
 Meyer, Mrs. A. H.
 Meyer, Abraham W.
 Meyer, Albert
 Meyer, Charles Z.
 Meyer, Oscar
 Meyer, Sam R.
 Meyer, William
 Meyercord, George R.
 Midowicz, C. E.
 Milhening, Frank
 Milhening, Joseph
 Miller, Charles B.
 Miller, Mrs. Clayton W.
 Miller, Mrs. Darius
 Miller, Mrs. F. H.
 Miller, Hyman
 Miller, John S.
 Miller, Dr. Joseph L.
 Miller, Mrs. Olive Beaupre
 Miller, Oscar C.
 Miller, R. T.
 Miller, Walter E.
 Miller, Mrs. Walter H.
 Miller, William E.
 Miller, William S.
 Mills, Allen G.
 Mills, Fred L.
 Mills, John, Sr.
 Miner, Dr. Carl
 Miner, H. J.
 Minotto, Mrs. James
 Mitchell, Charles D.
 Mitchell, George F.
 Mitchell, John J.
 Mitchell, Mrs. John J.
 Mitchell, Leeds
 Mitchell, Oliver
 Mock, Dr. Harry Edgar
 Moderwell, Charles M.
 Moeller, Rev. Herman H.
 Moeng, Mrs. Edward D.
 Moffatt, Mrs.
 Elizabeth M.
 Mohr, Edward
 Mohr, William J.
 Moist, Mrs. Samuel E.
 Molloy, David J.
 Moltz, Mrs. Alice
 Monaghan, Thomas H.
 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
 More, Roland R.
 Morey, Charles W.
 Morf, F. William
 Morgan, Alden K.
 Morgan, Mrs.
 Kendrick E.
 Morrill, Nahum
 Morris, Edward H.
 Morris, Eugene C.
 Morris, Mrs. Seymour
 Morrison, Mrs.
 Charles E.
 Morrison, Mrs. Harry
 Morrison, James C.
 Morrison, Matthew A.
 Morrison, 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
 Mowry, Louis C.
 Mudge, Mrs. John B.
 Muehlstein, Mrs. Charles
 Mueller, Austin M.
 Mueller, J. Herbert
 Mueller, Paul H.
 Mulford, Miss Melinda
 Jane
 Mulholland, William H.
 Murphy, John P. V.
 Murphy, Robert E.
 Musselman, Dr. George H.
 Naber, Henry G.
 Nadler, Dr. Walter H.
 Nash, Charles J.
 Nason, Albert J.
 Nathan, Claude

- Naugle, Mrs. Archibald
 Nebel, Herman C.
 Neely, Miss Carrie Blair
 Nehls, Arthur L.
 Neilson, Mrs. Francis
 Nellegar, Mrs. Jay C.
 Nelson, Charles G.
 Nelson, Donald M.
 Nelson, Edward A.
 Nelson, Murry
 Nelson, N. J.
 Nelson, Nils A.
 Nelson, Mrs. Oliver R.
 Nelson, Victor W.
 Netcher, Mrs. Charles
 Neu, Clarence L.
 Neuffer, Paul A.
 Newhall, R. Frank
 Nichols, George P.
 Nichols, Mrs. George R.
 Nichols, Mrs. George R., Jr.
 Nichols, J. C.
 Nichols, S. F.
 Nichols, Warren
 Nicholson, Thomas G.
 Nitze, Mrs. William A.
 Noble, Orlando
 Noelle, Joseph B.
 Nollau, Miss Emma
 Noonan, Edward J.
 Norcross, Frederic F.
 Norris, Mrs. Lester
 Norris, Mrs. William W.
 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.
 Odell, William R.
 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
 Omo, Don L.
 Oppenheimer, Alfred
- Oppenheimer, Mrs.
 Harry D.
 Oppenheimer, Julius
 Orndoff, Dr. Benjamin H.
 O'Rourke, Albert
 Orr, Mrs. Eleanor N.
 Orr, Mrs. Robert C.
 Orthal, A. J.
 Ortmyer, Dr. Marie
 Osborn, Theodore L.
 Ostrom, Charles S.
 Ostrom, Mrs. James
 Augustus
 Otis, J. Sanford
 Otis, Joseph E.
 Otis, Joseph Edward, Jr.
 Otis, Lucius J.
 Otis, Ralph C.
 Otis, Raymond
 Otis, Stuart Huntington
 Otis, Mrs. Xavier L.
 Ouska, John A.
 Owings, Mrs. Nathaniel A.
- Paasche, Jens A.
 Packard, Dr. Rollo K.
 Paepcke, Walter P.
 Page-Wood, Gerald
 Pagin, Mrs. Frank S.
 Palmer, Percival B.
 Pam, Miss Carrie
 Pardridge, Albert J.
 Pardridge, Mrs. E. W.
 Park, R. E.
 Parker, Frank B.
 Parker, Dr. Gaston C.
 Parker, Norman S.
 Parker, Troy L.
 Parks, C. R.
 Parmelee, Dr. A. H.
 Partridge, Lloyd C.
 Paschen, Mrs. Annette A.
 Paschen, Mrs. Henry
 Patrick, Miss Catherine
 Patrick, Dr. Hugh T.
 Pauling, Edward G.
 Payne, Professor James
 Peabody, Mrs. Francis S.
 Peabody, Howard B.
 Peabody, Miss Susan W.
 Peacock, Robert E.
 Peacock, Walter C.
 Pearse, Langdon
 Pearson, F. W.
 Pearson, George
 Albert, Jr.
 Peck, Dr. David B.
 Peet, Mrs. Belle G.
 Peet, Fred N.
 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, Mrs. Anna J.
 Peterson, Arthur J.
 Peterson, Axel A.
 Peterson, Mrs. Bertha I.
 Pflaum, A. J.
 Pfluck, Dr. John J.
 Phelps, Mrs. W. L.
 Phemister, Dr. Dallas B.
 Phillip, Peter
 Phillips, Herbert Morrow
 Picher, Mrs. Oliver S.
 Pick, Albert, Jr.
 Pick, George
 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.
 Pool, Marvin B.
 Pool, Mrs. W. Cloyd
 Poole, Mrs. Frederick
 Arthur
 Poole, George A.
 Poole, Mrs. Ralph H.
 Poor, Fred A.
 Poor, Mrs. Fred A.
 Pope, Frank
 Pope, Henry
 Pope, Herbert
 Poppenhagen, Henry J.
 Porter, Mrs. Frank S.
 Porter, Henry H., Jr.
 Porter, James F.
 Porterfield, Mrs. John F.
 Post, Frederick, Jr.
 Post, Gordon W.
 Post, Mrs. Philip Sidney
 Pottenger, William A.
 Powell, Mrs. Ambrose V.

- Powell, Isaac N.
 Prah, Frederick A.
 Pratt, Mrs. William E.
 Primley, Walter S.
 Prince, Rev. Herbert W.
 Prince, Leonard M.
 Prussing, Mrs. George C.
 Psota, Dr. Frank J.
 Puckey, F. W.
 Pulver, Hugo
 Purcell, Joseph D.
 Purdy, Sparrow E.
 Pusey, Dr. William Allen
 Putnam, Miss Mabel C.
- Quigley, William J.
 Quinlan, Dr. William W.
- Raber, Franklin
 Radau, Hugo
 Radford, Mrs. W. A., Jr.
 Radniecki, Rev. Stanley
 Raff, Mrs. Arthur
 Raftree, Miss Julia M.
 Railton, Miss Frances
 Randall, Charles P.
 Randall, Rev. Edwin J.
 Randall, Irving
 Randle, Mrs. Charles H.
 Randle, Guy D.
 Raney, Mrs. R. J.
 Rankin, Miss Jessie H.
 Rasmussen, George
 Ray, Hal. S.
 Raymond, Mrs.
 Howard D.
 Razim, A. J.
 Reach, Benjamin F.
 Reach, William
 Redington, F. B.
 Redington, Mrs. W. H.
 Reed, Mrs. Kersey Coates
 Reed, Norris H.
 Reed, Mrs. Philip L.
 Reeve, Mrs. Earl
 Reeve, Frederick E.
 Regensteiner, Theodore
 Regnery, William H.
 Reich, Miss Annie
 Reichmann, Alexander F.
 Reid, Mrs. Bryan
 Reiter, Joseph J.
 Remy, Mrs. William
 Renshaw, Mrs. Charles
 Renwick, Edward A.
 Rew, Mrs. Irwin
 Reynolds, Harold F.
 Reynolds, Mrs. Henry J.
 Reynolds, Mrs. J. J.
 Rice, Arthur L.
 Rice, George L.
 Rice, Laurence A.
- Rich, Edward P.
 Rich, Elmer
 Richards, J. DeForest
 Richards, Marcus D.
 Richardson, George A.
 Richardson, Guy A.
 Richter, Mrs. Adelyn W.
 Ricketts, 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.
 Rigney, William T.
 Rinder, E. W.
 Ring, Miss Mary E.
 Ripstra, J. Henri
 Rittenhouse, Charles J.
 Roach, Charles H.
 Robbins, Percy A.
 Roberts, Clark T.
 Roberts, Mrs. John
 Roberts, John M.
 Roberts, Dr. S. M.
 Roberts, Mrs. Warren R.
 Roberts, William Munsell
 Robinson, Mrs. Milton E.
 Robson, Mrs. Sarah C.
 Roche, Miss Emily
 Rockwell, Harold H.
 Roderick, Solomon P.
 Rodgers, Dr. David C.
 Rodman, Thomas Clifford
 Roehling, C. E.
 Roehling, Mrs. Otto G.
 Roehm, George R.
 Rogers, Miss Annie T.
 Rogers, Bernard F., Jr.
 Rogers, Dr. Cassius C.
 Rogers, Joseph E.
 Rogerson, Everett E.
 Rolfes, Gerald A.
 Rolosen, Robert M.
 Romer, Miss Dagmar E.
 Root, John W.
 Rosen, M. R.
 Rosenbaum, Mrs.
 Edwin S.
 Rosenfeld, Mrs. Maurice
 Rosenfield, William M.
 Rosenthal, James
 Rosenthal, Kurt
 Rosenthal, Lessing
 Rosenwald, Richard M.
 Ross, Charles S.
 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, Toby
 Ruckelhausen, Mrs.
 Henry
 Rueckheim, F. W.
 Rueckheim, Miss Lillian
 Ruel, John G.
 Rushton, Joseph A.
 Russell, Dr. Joseph W.
 Russell, Paul S.
 Rutledge, George E.
 Ryan, Henry B.
 Ryerson, Donald M.
 Ryerson, Mrs. Edward L.
 Ryerson, Joseph T.
- Sackley, Mrs. James A.
 Sage, W. Otis
 Salisbury, Mrs.
 Warren M.
 Salmon, Mrs. E. D.
 Sammons, Wheeler
 Sandidge, Miss Daisy
 Sands, Mrs. Frances B.
 Sardeson, Orville A.
 Sargent, Chester F.
 Sargent, John R. W.
 Sargent, Ralph
 Sauer, William A.
 Sauter, Fred J.
 Sauter, Leonard J.
 Sawyer, Dr. Alvah L.
 Schacht, John H.
 Schaffer, Dr. David N.
 Schaffner, Mrs. Joseph
 Schaffner, Robert C.
 Scheidenhelm, Edward L.
 Scheinman, Jesse D.
 Schermerhorn, W. I.
 Scheunemann, Robert G.
 Schlake, William
 Schmidt, Dr. Charles L.
 Schmidt, Mrs. Minna
 Schmitz, Dr. Henry
 Schmitz, Nicholas J.
 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, Frank H.
 Scott, Robert L.
 Scribner, Gilbert
 Scully, Mrs. D. B.
 Seaman, George M.
 Seames, Mrs. Charles O.
 Sears, J. Alden
 Sears, Richard W., Jr.
 Seaver, Andrew E.
 Seaverns, George A.
 Seaverns, Louis C.
 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, William C.
 Sello, George W.
 Sencenbaugh, Mrs. G. W.
 Seng, Frank J.
 Seng, J. T.
 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. Howard
 Shaw, Theodore A.
 Sheehy, Edward
 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
 Shockey, Mrs. Willis G.
 Shorey, Clyde E.
 Shoup, A. D.
 Shumway, Mrs. Edward
 DeWitt
 Shumway, P. R.
 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.
 Simonek, Dr. B. K.
 Sincere, Benjamin E.
 Sinclair, Dr. J. Frank
 Singer, Mrs. Mortimer H.
 Sitzer, Dr. L. Grace Powell
 Skooglund, David
 Sleeper, Mrs. Olive C.
 Slocum, J. E.
 Smith, Mrs. C. R.
 Smith, Mrs. Emery J.
 Smith, Mrs. Frank S.
 Smith, Franklin P.
 Smith, Harold Byron
 Smith, Jens
 Smith, Jesse E.
 Smith, Mrs. Katherine
 Walker
 Smith, Mrs. Kinney
 Smith, Samuel K.
 Smith, Sidney
 Smith, Mrs. Theodore
 White
 Smith, Walter Bourne
 Smith, Walter Byron
 Smith, Mrs. William A.
 Smith, Z. Erol
 Smullan, Alexander
 Snow, Edgar M.
 Snow, Fred A.
 Socrates, Nicholas
 Solem, Dr. George O.
 Sonnenschein, Edward
 Sonnenschein, Hugo
 Sonnenschein, Dr. Robert
 Sonneveld, Jacob
 Soper, Henry M.
 Sopkin, Mrs. Setia H.
 Soravia, Joseph
 Sorensen, James
 Spencer, Mrs. William M.
 Spiegel, Mrs.
 Frederick W.
 Spiegel, Mrs. Mae O.
 Spitz, Joel
 Spitz, Leo
 Spitzglass, Mrs.
 Leonard M.
 Spohn, John F.
 Spoor, Mrs. John A.
 Sprague, Dr. John P.
 Springer, Mrs. Samuel
 Squires, John G.
 Staack, Otto C.
 Stacey, Mrs. Thomas I.
 Staley, Miss Mary B.
 Stanton, Dr. E. M.
 Stanton, Edgar
 Stanton, Henry T.
 Starrels, Joel
 Stearns, Mrs. Richard I.
 Stebbins, Fred J.
 Steffens, Ralph Sutherland
 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, James W.
 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.
 Stockton, Miss Josephine
 Stone, Mrs. Jacob S.
 Strandberg, Erik P.
 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.
 Strobel, Charles L.
 Stromberg, Charles J.

- Strong, Edmund H.
 Strotz, Harold C.
 Struby, Mrs. Walter V.
 Stulik, Dr. Charles
 Sturges, Hollister
 Sturges, Solomon
 Sturtevant, Henry D.
 Suekoff, Louis A.
 Sullivan, Hon. 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
 Swift, Alden B.
 Swift, Mrs. Alden B.
 Swift, Edward F., Jr.
 Sykes, Mrs. Wilfred
- Taft, John H.
 Taft, Mrs. Oren E.
 Tarrant, Robert
 Tatge, Mrs. Gustavus J.
 Taylor, Charles C.
 Taylor, George Halleck
 Taylor, J. H.
 Teagle, E. W.
 Templeton, Stuart J.
 Templeton, Mrs. William
 Templeton, Walter L.
 Terry, Foss Bell
 Teter, Lucius
 Thatcher, Everett A.
 Theobald, Dr. John J.
 Thomas, Edward H.
 Thomas, Emmet A.
 Thomas, Frank W.
 Thomas, Mrs. Harry L.
 Thomas, Dr. William A.
 Thompson, Arthur H.
 Thompson, Charles E.
 Thompson, Charles F.
 Thompson, Edward F.
 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.
 Tighe, Mrs. Bryan G.
 Tilden, Averill
 Tilden, Louis Edward
- Tilt, Charles A.
 Tobias, Clayton H.
 Torbet, A. W.
 Touchstone, John Henry
 Towle, Leroy C.
 Towler, Kenneth F.
 Towne, Mrs. John D. C.
 Trainer, J. Milton
 Traylor, Mrs. Dorothy J.
 Tredwell, John
 Trench, Mrs. Daniel G.
 Tripp, Chester D.
 Trombly, Dr. F. F.
 Trowbridge, Raymond W.
 Trude, Mrs. Mark W.
 Tucker, S. A.
 Turner, Alfred M.
 Turner, Dr. B. S.
 Turner, Tracy L.
 Tuthill, Mrs. Beulah L.
 Tuttle, F. B.
 Tuttle, Henry Emerson
 Tuttle, Mrs. Henry N.
 Tyler, Albert S.
 Tyler, Mrs. Orson K.
 Tyrrell, Mrs. Percy
- Uhlmann, Fred
 Ullman, Mrs. N. J.
 Upham, Mrs. Frederic W.
- Valentine, Joseph L.
 Valentine, Mrs. May L.
 Valentine, Patrick A.
 VanCleaf, Mrs. Noah
 VanCleaf, Paul
 VanDeventer, Christopher
 VanNess, Gardiner B.
 VanSchaick, Gerard
 VanWinkle, James Z.
 VanZwoll, Henry B.
 Vaughan, Leonard H.
 Vawter, William A., II
 Veeder, Mrs. Henry
 Veeder, Miss Jessie
 Vehe, Dr. K. L.
 Vehon, Morris
 Vial, Charles H.
 Vial, Miss Mary M.
 Vickery, Miss Mabel S.
 Victor, Mrs. Jessie K.
 Vierling, Louis
 Vincent, Mrs. William
 Watkins
 Volicas, Dr. John N.
 Volk, Mrs. John H.
 VonColditz, Dr. G.
 Thomsen-
 VonGlahn, Mrs. August
 Voorhees, Mrs. Condit
 Vopicka, Charles J.
- Wagner, Fritz, Jr.
 Wagner, Dr. G. W.
 Wagner, John E.
 Walgreen, Mrs.
 Charles R.
 Walker, James
 Walker, Mrs. Paul
 Walker, William E.
 Wallace, Robert Y.
 Wallace, Walter F.
 Waller, H. P.
 Waller, J. Alexander
 Waller, Mrs. James B.
 Waller, James B., Jr.
 Wallerich, George W.
 Wallovick, J. H.
 Walther, Mrs. S. Arthur
 Ward, Mrs. N. C.
 Ware, Mrs. Charles W.
 Warfield, Edwin A.
 Warren, Allyn D.
 Warren, J. Latham
 Warren, Paul C.
 Warren, Paul G.
 Warren, Walter G.
 Warwick, W. E.
 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.
 Webb, George D.
 Webb, Mrs. Thomas J.
 Weber, Bernard F.
 Weber, Frank C.
 Webster, Arthur L.
 Webster, Miss Helen R.
 Webster, Dr. Ralph W.
 Wedelstaedt, H. A.
 Weil, Martin
 Weiler, Rudolph
 Weinstein, Dr. M. L.
 Weinselbaum, Louis L.
 Weis, Samuel W.
 Weisbrod, Benjamin H.
 Weiss, Mrs. Morton
 Weissenbach, Mrs.
 Minna K.
 Weisskopf, Maurice J.
 Weisskopf, Dr. Max A.
 Wells, Arthur H.
 Wells, Harry L.
 Wells, John E.

- Wells, Preston A.
Wells, Thomas E.
Wells, Mrs. Thomas E.
Wendell, Barrett, Jr.
Wentworth, Mrs. Moses J.
Werner, Frank A.
West, J. Roy
West, Miss Mary Sylvia
Westerfeld, Simon
Westrich, Miss T. C.
Wetten, Albert H.
Wetting, Louis E.
Weymer, Earl M.
Whealan, Emmett P.
Wheeler, George A.
Wheeler, Leo W.
Wheeler, Leslie
Wheeler, Mrs. Robert C.
Whinery, Charles C.
White, Harold F.
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, J. H.
Whiting, Lawrence H.
Whitlock, William A.
Wiborg, Frank B.
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.
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, Lucian M.
Williamson, George H.
Willis, Paul, Jr.
Willis, Thomas H.
Wilms, Herman 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.
Winans, Frank F.
Windsor, H. H., Jr.
Winston, Hampden
Winston, James H.
Winter, Irving
Wojtalewicz, Rev.
 Francis M.
Woley, Dr. Harry P.
Wolf, Mrs. Albert H.
Wolf, Henry M.
Wolf, Walter B.
Wolff, Louis
Wood, Mrs. Gertrude D.
- Wood, Mrs. Harold F.
Wood, John G.
Wood, John H.
Wood, Kay, Jr.
Wood, Robert E.
Wood, William G.
Woodmansee, Fay
Woodruff, George
Woods, Weightstill
Worcester, Mrs.
 Charles H.
Work, Robert
Wormser, Leo F.
Worth, Miss Helen E.
Wrenn, Mrs. Everts
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.
Young, George W.
Young, Hugh E.
- Zabel, Max W.
Zapel, Elmer
Zeisler, Mrs. Erwin P.
Zerler, Charles F.
Ziebarth, Charles A.
Zimmer, Mrs.
 Rudolph E.
Zimmerman, Herbert P.
Zimmerman, Louis W.
Zork, David
Zulfer, P. M.

DECEASED, 1933

- Bass, Mrs. Perkins
Becker, Leon V.
Borland, Mrs. John Jay
Buzzell, Edgar A.
- Chapin, Homer C.
Coonley, John Stuart
Cromwell, George O.
Curtis, John F. L.
- Davies, Warren T.
Deutsch, Joseph
Dickinson, Theodore
- Falk, Lester L.
Foreman, Oscar G.
Freund, I. H.
- Gates, Philetus W.
Green, Dr. Raphael B.
- Harbison, L. C.
Heckendorf, R. A.
Howes, Frank M.
- Jackson, Arthur S.
Johnson, Alfred
Jones, Fred B.
- Krohmer, William F.
- Lindenberg, Albert
Llewellyn, Mrs. S. J.
Louderback, William J.,
 Jr.
- Lyman, Thomas T.
- Meyer, Abraham
Mohr, Albert
- Norton, Mrs. O. W.
- Randle, Hanson F.
Richter, Bruno
- Stein, Samuel M.
Stevens, Raymond W.
- Wagner, Mrs. Mary G.
Ware, Mrs. Lyman
Withers, Allen L.

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	Phillips, Montagu Austin
Day, Mrs. Winfield S.	Stevens, Edmund W.

SUSTAINING MEMBERS

Those who contribute \$25 annually to the Museum

Alsip, Mrs. Charles H.	Goodman, Mrs. Milton F.	Newhouse, Karl
	Gordon, Leslie S.	Noble, Samuel R.
Bender, Daniel H.	Granger, Mrs. Everett J.	Odell, William R., Jr.
Butler, Burrigide D.	Greene, Henry E.	Orr, Thomas C.
Challenger, Mrs. Agnes	Hayslett, Arthur J.	Portman, Mrs. Edward C.
Chapman, Mrs. Doris L.	Hines, Charles M.	Prentice, John K.
Clark, Lincoln R.	Hodgkinson, Mrs. W. R.	Press, Mrs. Jacob H.
Cogswell, Elmer R.	Hollingsworth, R. G.	Rosenthal, Benjamin J.
Cohen, Louis	Howard, Mrs. Elmer A.	Rothschild, Justin
Curtis, Benjamin J.	Kavanagh, Clarence H.	Seelen, Mark B.
DesIsles, Mrs. Carrie L.	Knopf, Andrew J.	Shaw, E. R.
Dickey, William E.	Kopp, Gustave	Short, Miss Shirley Jane
Dowdle, John J.	Kraus, Samuel B.	Swiecinski, Walter
Dunn, Samuel O.	Lathrop, Mrs. Bryan	Titzel, Dr. W. R.
Eddy, Mrs. Augustus W.	Little, Mrs. E. H.	Voorhees, H. Belin
Friestedt, Mrs.	Mautner, Leo A.	Walker, Samuel J.
Herman F.	Merrell, John H.	Wright, H. K.
Gifford, Mrs. Frederick C.	Moeling, Mrs.	Young, Mrs. Caryl B.
Gooder, Seth MacDonald	Walter G.	
	Mulligan, George F.	

DECEASED, 1933

Welter, John N.

ANNUAL MEMBERS

Those who contribute \$10 annually to the Museum

Abbott, Edwin H.	Alessio, Frank	Amberg, Miss Mary Agnes
Abel, Miss Minnie	Alexander, Mrs. H. G. B.	Amory, W. Austin
Abt, Dr. Isaac A.	Alexander, Harry T.	Andersen, Miss Randi
Adams, Cyrus H., Jr.	Allen, C. W.	Anderson, Mrs. A. W.
Adams, Mrs. David T.	Allen, John D.	Anderson, Arch W.
Adams, Mrs. George	Allen, O. T.	Anderson, David G.
Adams, Harvey M.	Alrutz, Dr. Louis F.	Anderson, Miss Esther T.
Adams, Hugh R.	Alschuler, Hon. Samuel	Ankrum, Mrs. E. W.
Addams, Miss Jane	Alt, George E.	Anoff, Isador S.
Agar, Mrs. William Grant	Alzheimer, Ben J.	Anthony, Charles E.
Alden, William T.	Alton, Robert Leslie	Anthony, Joseph R.
Aldrich, Frederick C.	Amberg, J. Ward	Arnold, Francis M.

- Arnold, George G.
 Arnold, Mrs. Lloyd
 Arthur, Miss Minnie J.
 Ashcraft, Edwin M., III
 Atkeisson, Dr. J. E. H.
 Atkinson, Mrs. A. L. C.
 Atwell, W. C.
 Atwood, Fred G.
 Austin, E. F.
 Austin, Edwin C.
 Avery, George J.
 Axelson, Charles F.
 Ayers, William L.
- Bacon, Dr. Charles S.
 Bader, Miss Madelyn M.
 Baker, C. M.
 Baker, G. W.
 Balderston, Mrs.
 Stephen V.
 Ballard, Mrs. E. S.
 Bankard, E. Hoover, Jr.
 Banning, Samuel W.
 Barber, Mrs. F. L.
 Bargquist, Miss Lillian D.
 Barkhausen, Mrs.
 Henry G.
 Barlow, Henry H.
 Barnes, Harold O.
 Barnes, Mrs. Harold
 Osborne
 Barrett, Mrs. A. M.
 Barrett, Miss Adela
 Barrett, M. J. P.
 Bartholomay, William, Jr.
 Bartholomew, Mrs. F. H.
 Bartlett, Charles C.
 Barton, L. R.
 Baumann, Mrs. F. O.
 Baxter, John E.
 Beach, Calvin B.
 Bean, Edward H.
 Becker, Mrs. Herbert W.
 Beddoes, Hubert
 Beidler, Augustus F.
 Beifus, Morris
 Bell, George Irving
 Bell, Hayden N.
 Bennett, Edward H.
 Bennett, Mrs. Reid M.
 Bennington, Harold
 Benson, Mrs. T. R.
 Bentley, Richard
 Berg, Sigard E.
 Berger, Edward A.
 Berger, Dr. John M.
 Berger, R. O.
 Bergh, Ross F.
 Berlizheimer, Miss Lily A.
 Bestel, Oliver A.
 Biddle, Robert C.
 Billig, Mrs. George W.
- Birkenstein, Louis
 Bishop, Mrs. W. H.
 Black, Alfred B.
 Black, Herman
 Black, Peter M.
 Blackburn, Burr
 Blair, Mrs. Henry A.
 Block, Mrs. Joseph B.
 Blocki, Mrs. Fred W.
 Blomquist, Alfred
 Blue, John
 Bobb, Dwight S.
 Boberg, Niels
 Bohner, William F.
 Bomberger, Mrs.
 Louden L.
 Bond, William A.
 Boone, Arthur
 Borcharding, E. P.
 Bothman, Dr. Louis
 Bournique, Alvar L.
 Bowen, Joseph T., Jr.
 Bowes, William R.
 Bowman, Jay
 Boyd, Mrs. E. B.
 Boyd, Joseph K.
 Boyd, Mrs. T. Kenneth
 Brachvogel, Mrs.
 Christiana
 Bradford, Frederick H.
 Bradley, Herbert E.
 Brainerd, Mrs. David E.
 Brandenburg, Mrs. O. H.
 Brant, Melburn
 Brashears, J. W.
 Braudy, Mrs. Louis C.
 Bremner, Dr. M.
 David K.
 Brennemann, Dr. Joseph
 Brewer, Edward H.
 Brewster, William E.
 Brodt, Irwin W.
 Broome, John Spoor
 Broome, Mrs. Thornhill
 Broomell, Chester C.
 Brower, Jule F.
 Brown, Alvia K.
 Brown, Miss Ella W.
 Brown, Gerard S.
 Brown, H. A.
 Brown, H. S.
 Brown, J. D.
 Brown, Mrs. W. Gray
 Brown, William A.
 Browne, Theodore C.
 Brucker, Dr. Edward A.
 Brucker, Dr. Matthew W.
 Bruhnke, A. C.
 Brumley, Daniel Joseph
 Brunker, A. R.
 Brunt, J. P.
 Bryan, H. H.
- Buchbinder, Dr. J. R.
 Buchen, Walther
 Buck, Nelson Earl
 Buck, Mrs. O. J.
 Buckingham, Mrs. John
 Buckley, Mrs. Warren
 Buell, Mrs. Charles C.
 Buell, James H.
 Buhlig, Paul
 Buhrke, Alfred E.
 Bullard, Sellar
 Bunc, Edward C.
 Bunnell, John A.
 Bunte, Mrs. Theodore W.
 Bunting, Guy J.
 Bunts, Frederick W.
 Burch, Mrs. W. E.
 Burdick, Mrs. Alfred S.
 Burkhardt, Charles E.
 Burnet, Mrs. W. A.
 Burnham, Daniel H.
 Burnham, Hubert
 Burns, Mrs. John S.
 Burridge, Mrs. Howard J.
 Burrows, Miss Louisa L.
 Busch, Francis X.
 Butler, Mrs. Gerald M.
 Butler, Mrs. Lloyd E.
 Byfield, Ernest L.
 Byrnes, William Jerome
- Cable, Arthur G.
 Cahill, William A.
 Cain, G. R.
 Caine, John F.
 Callahan, Mrs. A. F.
 Cammack, Herbert M.
 Camp, Benjamin B.
 Campbell, Argyle
 Campbell, Donald A.
 Campbell, Mrs. John G.
 Campbell, Robert W.
 Campe, Frank O.
 Canavan, J. Newell
 Cardelli, Mrs. Giovanni
 Carl, Otto Frederick
 Carnahan, Mrs. Glen C.
 Carpenter, F. D.
 Carpenter, John Alden
 Carr, Dr. James G.
 Carr, John O.
 Carrington, Edmund
 Carter, Mrs. C. B.
 Carter, John A., Jr.
 Cassady, Mrs. Thomas G.
 Castenholz, W. B.
 Castle, Sydney
 Caswell, Mrs. A. B.
 Cathcart, Mrs. James A.
 Cervenka, John A.
 Chandler, Charles H.
 Chandler, George M.

- Chapin, Rufus F.
 Chelius, Joseph F.
 Cherry, Mrs. Walter L.
 Chessman, L. W.
 Childs, Kent C.
 Childs, Theron W.
 Chrissinger, Horace B.
 Christensen, Henry C.
 Clague, Mrs. Stanley, Sr.
 Clane, Miss M. T.
 Clark, C. P.
 Clark, Mrs. Ralph E.
 Clark, Robert H.
 Clarke, Broadus J.
 Clayton, Mrs.
 Anna G.
 Clements, Rev.
 Robert
 Clemer, J. H.
 Cleveland, Mrs. A. F.
 Clifford, Thomas B.
 Clithero, W. S.
 Clizbe, Mrs. F. O.
 Cochrane, Mrs. A. B.
 Coe, Frank Galt
 Coen, T. M.
 Coffin, Fred Y.
 Coffman, A. B.
 Cohen, A. E.
 Cole, Lawrence A.
 Coleman, Mrs.
 Adelbert E.
 Coleman, Algernon
 Coleman, B. R.
 Coleman, Hamilton
 Collins, Arthur W.
 Collins, Charles W.
 Collins, Mrs. Frank P.
 Collins, Dr. Lorin C.
 Collins, Dr. Rufus G.
 Collison, E. K.
 Condit, Mrs. J. S.
 Condon, Thomas J.
 Consoer, Arthur W.
 Converse, Earl M.
 Cook, Mrs. Chester A.
 Cook, Louis T.
 Cook, Paul W.
 Cook, Sidney A.
 Coon, Robert E.
 Cooper, Mrs. Henry N.
 Coppel, Mrs. Charles H.
 Corbin, Mrs. Dana
 Cornwell, W. H.
 Corper, Erwin
 Cottell, Miss Louisa
 Cowan, Mrs. Grace L.
 Cozzens, Mrs. Frederick B.
 Craddock, John F.
 Cramer, Mrs. Ambrose
 Cramer, S. B.
 Crawford, Adam W.
 Crellin, Miss Mary F.
 Crosby, Mrs. Frederick W.
 Culbertson, Mrs.
 James A.
 Culley, Mrs. A. B.
 Culp, Miss Mary V.
 Cuneo, Frank
 Cunningham, Robert
 Cunningham, Robert M.
 Curtis, D. C.
 Curtis, John G.
 Cuscadin, Fred A.
 Dahle, Isak
 Daiches, Eli
 Dalmar, Hugo
 Danielson, Reuben G.
 Date, Mrs. S. S.
 David, Sidney S.
 David, Sigmund W.
 Davies, William B.
 Davis, Alexander M.
 Davis, Mrs. Charles P.
 Davis, Charles S.
 Davis, Mrs. F. Ben
 Davis, Paul H.
 Davis, Mrs. R. M.
 Davis, Ralph W.
 Dean, William D.
 Deane, Ruthven
 Deans, Mrs. Herbert
 G. P.
 DeBarry, C. D.
 DeBere, Dr. C. J.
 Decker, Hiram E.
 Defrees, Mrs. Joseph H.
 Degener, August W.
 Degenhardt, Dr. Edgar
 DeGerald, Hartley
 Deimel, Mrs. Jerome L.
 Deininger, Mrs. D. M.
 DeLamar, Mrs. Eric
 Demaree, H. S.
 Deneen, Robert J.
 Denison, Mrs. John
 Porter
 Denison, John W.
 Dennis, Willard P.
 DePeyster, Frederic A.
 Deree, William S.
 Derham, John A.
 Dering, Mrs. Edith S.
 Deutsch, Mrs. Anna C.
 Dillbahner, Frank
 Dixon, Mrs. Wesley M.
 Doctoroff, John
 Dodds, Roland P.
 Doering, Mrs. Edmund
 J., Jr.
 Donnelly, Thorne
 Dorney, Rev. Maurice A.
 Dosch, Henry C.
 Draper, James
 Drell, Mrs. J. B.
 Dreyfus, Maurice M.
 Drielsma, I. J.
 Drinkall, Dr. Earl J.
 Drymalski, Paul
 Dumbaugh, Harry J.
 Duncan, W. S.
 Dunigan, Edward B.
 Durr, Mrs. Herbert A.
 Easter, Adolph H.
 Egloff, Gustav
 Ehrmann, Dr. Fred J. E.
 Eich, John William
 Eisdorath, Miss
 Elsa B.
 Eldred, Mrs. Harriot W.
 Elich, Mrs. Herman
 Ellbogen, Mrs. Max
 Elliott, Dr. Clinton A.
 Elliott, Francke C.
 Elmslie, George G.
 Elting, Victor
 Emerson, R. W.
 Emig, Howard A.
 Engelhart, Frank C.
 Englander, Mrs.
 Marcelite S.
 Engstrom, Harold
 Epstein, Mrs. Arnold
 Erd, Arthur A.
 Erickson, Elmer
 Erickson, H. E.
 Erickson, Samuel E.
 Erminger, Mrs. H. B., Jr.
 Espenshade, Mrs. E. B.
 Estes, Clarence E.
 Ettelson, Samuel A.
 Eulass, Elmer A.
 Evans, Mrs. Arthur T.
 Everett, Edward W.
 Ewing, Davis
 Fabrice, Edward H.
 Falls, Dr. F. H.
 Farquharson,
 William J.
 Farrier, Clarence W.
 Farwell, Albert D.
 Farwell, Edward P.
 Farwell, Stanley P.
 Faulkner, Dr. Louis
 Felsenthal, Herman
 Fenton, J. R.
 Ferry, Mrs. Frank
 Field, Heman H.
 Field, Mrs. J. A.
 Findlay, Dr. Ephraim K.
 Fitch, Thomas
 Fitzpatrick, Mrs. T. F.
 Flanagan, William C.

- Fleming, Edward J.
 Fleming, Mrs. Joseph B.
 Floren, Mrs. Adolph R.
 Flynn, M. J.
 Flynn, Maurice J.
 Foley, Mrs. John Burton
 Folsom, Mrs. William R.
 Forch, Mrs. John L., Jr.
 Forrest, Maulsby
 Forrester, Mrs. W. W.
 Forsyth, Dr. Edna M.
 Fortune, John L.
 Fowler, Edgar C.
 Fowler, Gordon F.
 Fowler, Harold A.
 Fowler, Walter E.
 Fox, Hugo E.
 Fox, Professor Philip
 Foy, John J.
 Frank, John M.
 Frank, Miss Margaret
 Frazee, Seward C.
 Freehof, Dr. Solomon B.
 Freiler, Abraham J.
 French, Dr. Thomas M.
 Freund, Erwin O.
 Friedberg, Mrs. Stanton
 Frieder, Edward N.
 Friedrichs, Mrs. Edith E.
 Friend, Oscar F.
 Fuller, Mrs. Eugene W.
 Fuller, Dr. George
 Damon
 Gable, Harley O.
 Gale, Abram
 Gallauer, Carl
 Galvin, Joseph X.
 Gano, David R.
 Gardner, Robert H.
 Gates, Philip R.
 Geraghty, Mrs.
 Thomas F.
 Getts, Henry L.
 Gibbs, William J.
 Gibbs, Dr. William W.
 Gibson, Joseph R.
 Gilchrist, Miss Harriet F.
 Giles, Miss A. H.
 Gilkes, William H.
 Glader, Frank J.
 Gladish, David F.
 Gleason, Mrs. M. B.
 Gledhill, Edward
 Glover, John
 Glynn, Mrs. John E.
 Goble, Mrs. E. R.
 Goddard, Mrs. Convers
 Godfrey, Joseph, Jr.
 Goldberg, Mrs. Sol. H.
 Goldfield, Dr. Bernard
 Goldie, George G.
 Goldman, Mrs. Louis
 Goldsmith, Henry M.
 Goodell, Mrs. Charles E.
 Goodkind, Mrs. A. L.
 Gordon, Miss Maude
 Gould, George W.
 Gowenlock, Mrs. T. R.
 Gramm, Dr. Carl T.
 Grauer, Milton H.
 Graver, Philip S.
 Graves, Mrs. B. C.
 Graves, Mrs. George E.
 Gray, William A.
 Gray, Mrs. William S.
 Graydon, Charles E.
 Green, Walter H.
 Greenebaum, Mrs. Esther
 Greenlee, William B.
 Gregg, John Wyatt
 Gregory, Mrs. Robert B.
 Grein, Joseph
 Grey, Newton F.
 Griffin, Mrs. J. J.
 Griffith, Mrs. G. H.
 Grimmer, Dr. A. H.
 Groebe, Louis G.
 Groot, Lawrence A.
 Guillems, John R.
 Guinan, James J.
 Gunderson, Mrs.
 George O.
 Gunkel, George F.
 Gunnar, Mrs. H. P.
 Gurley, Miss Helen K.
 Haas, Adolph R.
 Hagen, Roland V.
 Hagey, J. F.
 Hajek, Henry F.
 Hall, Arthur B.
 Hall, Harry
 Hall, Henry C.
 Hall, J. M.
 Hall, Louis W.
 Hamblen, J. C.
 Hamilton, Mrs.
 Chester F.
 Hamilton, Hugo A.
 Hamilton, J. R.
 Hamline, Mrs.
 John H.
 Hammond, Mrs. I. L.
 Haney, Mrs. S. C.
 Hann, J. Roberts
 Hansen, Adolph H.
 Hanson, August E.
 Hanson, Martin J.
 Harbecke, H. H.
 Harding, Mrs. Charles F.
 Hardy, Henry G.
 Hare, Howard B.
 Harmon, Hubert P.
 Harpel, Mrs. Charles J.
 Farrigan, E. J.
 Harriman, Frank B.
 Harris, Ewart
 Harris, Frank F.
 Harrison, Edward R.
 Harrison, William H.
 Harrold, James P.
 Harshaw, Myron T.
 Hart, Mrs. G. H.
 Hart, Mrs. Harry
 Hart, Louis E.
 Hart, Max A.
 Hart, Robert H.
 Hart, Mrs. Walter H.
 Hartigan, Clare
 Harvey, Byron S.
 Harvey, Mrs. Harold B.
 Haskell, L. A.
 Haskins, Mrs. Virginia W.
 Hattstaedt, Mrs.
 John J.
 Hausler, Mrs. M., Jr.
 Hauter, Mrs. A. N.
 Haven, Mrs. Alfred C.
 Hawkins, Frank P.
 Hawkinson, Dr. Oscar
 Hawthorne, Vaughn R.
 Healy, John J.
 Hebel, Hon. Oscar
 Heckel, Edmund P.
 Heg, Ernest
 Heide, Bernard H.
 Heifetz, Samuel
 Helebrandt, Louis
 Heller, Ward
 Hemington, Dr. Francis
 Henderson, B. E.
 Hendrickson, Magnus
 Henning, Charles F.
 Henriksen, H. M.
 Henry, C. Duff
 Henschen, Henry S.
 Herlihy, Frank J.
 Hertz, Mrs. John D.
 Hertzberg, Edward
 Hess, Edward J.
 Hess, Mrs. J. H.
 Hess, Sol H.
 Hessler, John B.
 Heubach, Mrs. Lydia
 Heym, Dr. A.
 Heymann, L. H.
 Hibbard, Angus S.
 High, Mrs. George H.
 High, Shirley T.
 Hill, Mrs. Cyrus G.
 Hill, Mrs. Frank L.
 Hill, Miss Meda A.
 Hilliker, Miss Ray
 Hills, Edward R.
 Hilpert, Willis S.

- Hilton, Henry H.
 Hirsch, Dr. Edwin F.
 Hirsh, Morris Henry
 Hiter, Frank A.
 Hoadley, Mrs. Arthur G.
 Hoag, Mrs. Junius C.
 Hochstader, Gustav
 Hodge, Thomas P.
 Hoff, C. W.
 Holabird, John A.
 Holden, Charles R.
 Hollingsworth, Dr. E. W.
 Holm, Gottfried
 Holman, Alfred L.
 Holman, Scott A.
 Holmes, Thomas J.
 Holt, Mrs. Arthur E.
 Holt, James A.
 Holt, McPherson
 Holter, Charles C.
 Honecker, Ralph H.
 Hood, George A.
 Hooge, Dr. Ludwig F.
 Hoover, Mrs. Frank K.
 Hopkins, James M., Jr.
 Horween, Ralph
 Howe, Irwin M.
 Howland, Mrs. Elvin W.
 Hoyt, N. Landon, Jr.
 Hoyt, William M., II
 Hubachek, Frank Brookes
 Hubbell, Mrs. Pearl
 Ecker
 Hubbell, William J.
 Huebsch, Mrs. Helen M.
 Huenink, H. L.
 Huettmann, Fred
 Huffacker, Mrs.
 O'Bannon L.
 Hufty, Mrs. F. P.
 Hughes, George A.
 Hughes, W. V.
 Hughitt, Mrs. Marvin
 Huguenor, Lloyd B.
 Hurd, Harry B.
 Hurley, Frank J.
 Hutchinson, Mrs. C. L.
 Hyatt, R. C.
 Hymers, Mrs. Edward
 Hyndman, Mrs. A. H.
 Hyslop, Dr. R. J.
- Ibsen, Mrs. Norman
 Illian, Arthur J. G.
 Iralson, Mrs. Moses
 Irwin, Amory T.
 Isaacs, Michael H.
- Jaburg, Mrs. John
 Jackson, Howard K.
 Jackson, Mrs. Pleda H.
 Jackson, R. W.
- Jackson, W. H.
 Jackson, William F.
 Jacobs, E. G.
 Jacobs, Walter H.
 Jacobson, Egbert G.
 Jacobus, Graham B.
 James, Dr. R. L.
 Jamieson, Norman R.
 Janata, Louis J.
 Jarchow, Mrs. C. E.
 Jarvis, William B.
 Jeffers, Roy S.
 Jennings, Mrs. C. A.
 Jennings, S. C.
 Jernberg, Carl L.
 Jewell, Miss Helen M.
 Jewett, Mrs. George C.
 Jewett, Miss Josephine J.
 Johnson, B. W.
 Johnson, Edmund G.
 Johnson, Frank
 Johnson, Mrs. Herbert S.
 Johnson, Oliver W.
 Johnson, Mrs. Perry R.
 Johnson, Mrs. W. B.
 Johnston, Ira B.
 Johnstone, Mrs. Bruce
 Jones, Mrs. C. A.
 Jones, Homer D., Jr.
 Jones, Howard B.
 Jones, Owen Barton
 Jordan, J. S.
 Jourdan, Al
 Joy, James A.
 Judson, Clay
 Junker, Richard A.
- Kaempfer, F. W., Jr.
 Kaempfer, Fred
 Kalbfell, Conrad J.
 Kanavel, Dr. Allen B.
 Kann, Max M.
 Kannally, Michael V.
 Kanter, Dr. Aaron E.
 Karger, Mrs. Samuel I.
 Karpen, Solomon
 Kaufmann, Dr. Gustav L.
 Kaumeyer, Mrs. E. A.
 Keene, William J.
 Keig, Marshall E.
 Kelley, Gordon P.
 Kellogg, James G.
 Kellogg, John Payne
 Kelly, Frank S.
 Kelly, Joseph J.
 Kelly, William P.
 Kenly, Mrs. William K.
 Kennedy, David E.
 Kennedy, Mrs. Edward A.
 Kennedy, Lesley
 Kent, Henry R.
 Keplinger, W. A.
- Kerr, Mrs. Alexander M.
 Kerwin, Edward M.
 Kestnbaum, Meyer
 Keyser, Charles F.
 Kiessling, Mrs. Charles S.
 Kimball, William W.
 Kindsvogel, W. G.
 King, Mrs. Calvin P.
 King, David E.
 King, Mrs. Nelora S.
 King, Mrs. W. H.
 Kircher, Mrs. J. G.
 Kirkpatrick, Donald
 Klein, Mrs. A. S.
 Klein, Dr. David
 Klein, Fred W.
 Kleinschmidt, Edward
 Klotz, Edward C.
 Klugh, Paul B.
 Knapp, Charles S.
 Knobbe, John W.
 Knoke, Mrs. Clara P.
 Knott, Mrs. Stephen R.
 Kobin, Mrs. William C.
 Koch, Raymond J.
 Koenig, Otto N.
 Koepke, Frank J.
 Kohl, Clarence E.
 Kohn, Mrs. Caroline H.
 Kohn, Mrs. Frances J.
 Kohout, Joseph, Jr.
 Klostad, Odin T.
 Kort, George
 Kraft, John H.
 Kraft, Dr. Oscar H.
 Krebs, Charles E.
 Kreusser, Mrs. O. T.
 Kuehn, Miss Katherine
 Kuehn, Oswald L.
 Kunstadter, Sigmund
 Kuppenseimer, Mrs.
 Jonas
- Ladd, George D.
 Laemmle, Mrs. Louis
 Lafean, W. L.
 Laffin, Charles W.
 Laird, Robert S.
 Lake, Mrs. R. C.
 Lallely, Henry J.
 Landes, Mrs. Herbert
 Ross
 Langdon, Buel A.
 Lange, A. G.
 Langford, Joseph P.
 Lantry, Thomas B.
 Laramore, Florian Eugene
 Larsen, Gustave R.
 Larson, Simon P.
 Lasch, Charles F.
 Lashinsky, Nathan N.
 Lathrop, Frederick A.

- Lau, Mrs. John Arnold
 Lavidge, Arthur W.
 Law, M. A.
 Lawson, Miss Mary J.
 Lawton, Samuel T.
 Lazear, Dr. Davies
 Lazelle, L. L.
 Leal, Miss Rose B.
 Lechler, E. Fred
 Lee, Edward T.
 Lee, Mrs. W. George
 Leigh, Maurice
 Leitzell, Mrs. Samuel N.
 Leonard, Dr. Joseph M.
 LeSage, Rev. John J.
 Leslie, John Woodworth
 Lettermann, A. L.
 Levett, Dr. John
 Levin, Louis
 Levis, John M.
 Levy, Mrs. Arthur K.
 LeWald, W. B.
 Lewis, Mrs. Harry G.
 Lewis, Mrs. Walker O.
 L'Hommedieu, Arthur
 Lichtenstein, Walter
 Liddle, Charles A.
 Lindley, Mrs. Fred W.
 Linkman, Louis B.
 Linn, Mrs. James W.
 Lipman, Abraham
 Llewellyn, Arthur J.
 Lobdell, Harry H.
 Lockwood, David W.
 Loeb, Arthur A.
 Loehr, Karl C.
 Loewenherz, Emanuel
 Logan, Frank G.
 Louis, Mrs. John J.
 Lovett, Miss Alma J.
 Lowenthal, Leo B.
 Ludlam, Miss Bertha S.
 Lutz, J. George
 Lutzow, Fred H.
 Lydston, Mrs. G. Frank
- MacArthur, Fred V.
 Macfarland, Mrs.
 Henry J.
 Macfarland, Lanning
 Macfarlane, Wilbert E.
 MacFerran, Charles S.
 Mackenzie, Mrs. G. S.
 Mackworth, Mrs.
 Isabel
 Maclean, J. A.
 MacNeille, Mrs. C. T.
 Macomb, J. DeNavarre
 Malkov, David S.
 Maltman, James
 Manaster, Henry
 Mandel, Miss Florence
- Mandelbaum, Mrs.
 Maurice H.
 Manheimer, Arthur E.
 Manierre, John T.
 Mann, Howard
 Mansfield, Alfred W.
 Marnane, James D.
 Marsh, John McWilliams
 Marshall, Raphael P.
 Marston, Mrs. T. B.
 Martin, Edward
 Martin, I. S.
 Martin, Mellen C.
 Mason, Mrs. George H.
 Massena, Roy
 Massmann, Frederick H.
 Mastin, Mrs. W. H.
 Mathews, Mrs. Shailer
 Matthews, Francis E.
 Matz, Miss Ruth H.
 May, Mrs. George T., Jr.
 May, Sol
 Mayer, Edwin W. C.
 Mayer, Herman J., Jr.
 Mayer, Oscar G.
 McAllister, M. Hall
 McArthur, Dr. Lewis L.
 McArthur, Mrs. S. W.
 McCahey, James B.
 McClelland, Mrs. E. B.
 McClure, Donald
 McConnell, Mrs. H. A.
 McCormick, Alister H.
 McCormick, Miss
 Elizabeth D.
 McCoy, Charles S.
 McCulloch, Frank H.
 McDonald, Lewis
 McDougall, Mrs.
 Edward G.
 McFadden, Everett R.
 McGrath, George E.
 McGregor, James P.
 McGuinn, Edward B.
 McGuire, Simms D.
 McHenry, Roland
 McIlvaine, Mrs. John H.
 McKay, Charles R.
 McKay, Miss Mabel
 McKeever, Mrs. R.
 Townsend
 McKibbin, Mrs. George B.
 McLaughlin, Dr. James H.
 McMurray, Mrs. George
 Norton
 McNair, Frank
 McNamara, Robert C.
 McNamee, Peter F.
 McPherson, Donald F.
 McShane, James E.
 McSurely, Mrs.
 William H.
- Mead, H. B.
 Mears, Grant S.
 Mechem, J. C.
 Meek, Miss Margaret E.
 Meeker, Arthur
 Mehlhope, Clarence E.
 Meigs, James B.
 Messenger, Don E.
 Michaels, Joseph
 Milchrist, Frank T.
 Millard, Mrs. E. L.
 Miller, Charles J.
 Miller, Edward L.
 Miller, Henry G.
 Miller, Mrs. Phillip
 Miller, Richard O.
 Mills, Mrs. William S.
 Millsaps, J. H.
 Mitchell, Mrs. George R.
 Moldenhauer, Dr.
 William J.
 Moment, Asher
 Monilaw, Dr. William J.
 Monk, George S.
 Montgomery, Mrs. F. H.
 Montgomery, John R.
 Moore, Mrs. Agnes C.
 Moore, Dr. Beveridge H.
 Moore, Frederick W.
 Moore, Mrs. J. W.
 Moore, Miss M. Eleanor
 Moore, Nathan G.
 Moore, Oscar L.
 Morgenthau, Mrs.
 Sidney L.
 Moroney, John J.
 Morris, Ira Nelson
 Morrison, Mrs. C. R.
 Morton, Dr. Edward C.
 Moser, Paul
 Moss, Fred H.
 Mower, Mrs. Roswell C.
 Mowry, Robert D.
 Mueller, Dr. E. W.
 Mulford, Frank B.
 Mundie, Mrs. W. B.
 Murfey, E. T. R.
 Murphy, Henry C.
 Murphy, J. P.
 Murray, Robert H.
 Myrland, A. L.
- Naess, Sigurd E.
 Nance, Willis D.
 Nath, Bernard
 Nau, Otto F.
 Neal, Thomas C.
 Neely, Mrs. Lloyd F.
 Nelson, Byron
 Nelson, Charles M.
 Nelson, Mrs. Joseph K.
 Nelson, Miss Minnie

- Nelson, Dr. Ole C.
 Nelson, Mrs. W. R.
 Nergard, Edwin J.
 Nessler, Robert W.
 Nevins, John C.
 Newberry, Miss Mary L.
 Newman, Mrs. H. H.
 Newman, Mrs. Jacob
 Niblack, Mrs. William C.
 Nichols, Mrs. Leslie H.
 Nicholson, Mrs. Frank G.
 Nickelson, S. T.
 Nickerson, J. F.
 Niles, W. A.
 Noble, F. H.
 Norman, Dan
 Norris, Eben H.
 Norris, James Dougan
 North, Mrs. F. S.
 Northrup, Lorry R.
 Norton, Ellery
 Notheis, Mrs. J. F.
 Noyes, Ernest H.
 Noyes, Mrs. John High
 Nugent, Dr. O. B.
 Nutting, C. G.
 Nuyttens, Alfred A.
- O'Brien, M. J.
 O'Brien, Mrs. Philip
 Raymond
 Oleson, Dr. Richard
 Bartlett
 Olin, Edward L.
 Olin, Dr. Harry D.
 Oliver, G. F.
 Olmstead, Ralph W.
 Olmsted, Conway H.
 Olsen, Mrs. Arthur O.
 Olson, Hon. Harry
 Ormsby, Mrs. Frank E.
 Ossendorff, Dr. K. W.
 Outcault, Mrs. Richard
 F., Jr.
- Palmer, Robert F.
 Parker, George S.
 Parsons, Bruce
 Patch, Mrs. G. M.
 Patrick, Anthony M.,
 Jr.
 Patterson, Mrs. Harry C.
 Patterson, Mrs. L. B.
 Patterson, Mrs. Wallace
 Pauley, Clarence O.
 Peacock, Charles D.
 Pearl, Allen S.
 Pearson, F. J.
 Pencik, Miles F.
 Pentecost, Lewis J.
 Pepple, Mrs. Eloise D.
 Perryman, Mrs. Hattie S.
 Person, Peter P.
- Peters, G. M.
 Peterson, Dr. A. B.
 Petrie, Dr. Scott Turner
 Pettersen, Fred A.
 Pfeiffer, Mrs. Jacob
 Pflager, Charles W.
 Phelps, Erastus R.
 Phillips, Howard C.
 Pickell, J. Ralph
 Pietsch, Walter G.
 Pigall, Mrs. Joseph S.
 Piper, Mrs. Walter F.
 Pitcher, Mrs. John C.
 Place, F. E.
 Plamondon, Alfred D.
 Plath, Karl
 Platner, John K.
 Plattenburg, S. R.
 Plummer, Daniel C., Jr.
 Pollack, Meyer M.
 Potts, Mrs. W. G.
 Poust, Cassius
 Prindle, James H.
 Pringle, Mrs. James E.
 Pritchard, N. H.
 Pritchard, Mrs.
 Richard E.
 Prosser, H. G.
 Proxmire, Dr. Theodore
 Stanley
 Pulver, Henri Pierre
 Purrucker, Miss
 Louise M.
 Putnam, Rufus W.
 Puttkammer, Mrs. Ernst
 Pyterek, Rev. Peter H.
- Quarrie, William F.
 Quinlan, James T.
- Raim, Dr. William
 Raithel, Miss Luella
 Ramis, Leon Lipman
 Randall, C. M.
 Randick, Miss Sara A.
 Ranney, Mrs. George A.
 Rasmussen, Frank
 Rawlings, Mrs. I. D.
 Ray, Harry K.
 Raymond, Mrs. Clifford S.
 Rayner, Mrs. Arno P.
 Read, Mrs. J. J.
 Reay, William M.
 Redman, Sterling L.
 Reebie, Mrs. Arthur W.
 Reed, Mrs. Frank C.
 Reed, Mrs. Frank D.
 Reed, Rufus M.
 Reed, T. J.
 Reed, Walter S.
 Reed, William P.
 Reffelt, Miss F. A.
- Regensburg, James
 Reichmann, Albert F.
 Rein, Lester E.
 ReQua, Mrs. Charles H.
 Reuss, Mrs. Henry H.
 Rice, Mrs. Charles R.
 Rice, Granville
 Rice, Joseph J.
 Rice, Mrs. Kenneth E.
 Rich, Kenneth F.
 Richards, James Donald
 Richardson, Henry R.
 Rick, Miss Florence
 Rickard, Mrs. Fay E.
 Riddell, Charles
 Riel, G. A.
 Ritchie, Mrs. John
 Roadifer, W. H.
 Robbins, Laurence B.
 Roberts, Francis R.
 Robinson, Miss Nellie
 Robson, Mrs. Oscar
 Rocca, Mrs. Pina
 Rockhold, Mrs.
 Charles W.
 Rockwell, Lester
 Rockwell, Theodore G.
 Rockwood, Frederick T.
 Roden, Carl B.
 Roe, Miss Carol F.
 Rolland, Frederick
 George
 Rohnick, Dr. Harry C.
 Roodhouse, Benjamin T.
 Rosenberg, Mrs.
 Bernhard
 Rosenfels, Irwin S.
 Rosenfield, Morris S.
 Roth, Arthur J.
 Roth, Lester
 Rowell, Dr. L. W.
 Rowles, E. W. A.
 Rowley, Clifford A.
 Roy, Mrs. Ervin L.
 Rozene, Arthur E.
 Rubovits, Theodore
 Rudolph, Miss Bertha
 Ruettinger, Mrs. J. C.
- Sachs, Paul J.
 Saggars, Wayne
 Salomon, Mrs. Joseph K.
 Sanborn, Mrs. V. C.
 Sapitzky, Miss Bessie M.
 Sauermann, Otto
 Savage, Joseph P.
 Sawyer, Dr. C. F.
 Sayers, Mrs. A. J.
 Sayre, Dr. Loren D.
 Scallan, John William
 Schaar, Bernard E.
 Schad, Mrs. G. F.

Schafer, O. J.
 Schaffner, Arthur B.
 Schaus, Carl J.
 Scheel, Fred H.
 Scherer, Andrew
 Schermerhorn, Richard A.
 Schiff, Sydney K.
 Schmidt, Dr. Henry J. G.
 Schmidt, Dr. Otto L.
 Schmidt, Theodore
 Schmitt, Mrs. George J.
 Schneider, Dr. C. O.
 Schoeneck, Edward F.
 Schrader, Miss
 Harriet N.
 Schultz, Walter H.
 Schulze, Paul
 Schwab, Martin C.
 Schwarz, August
 Schwarz, Dr. Leigh E.
 Schwede, Charles W.
 Schweitzer, E. O.
 Schweitzer, Samuel
 Schweizer, Carl
 Schymanski, Mrs. Helen
 Scott, George H.
 Scott, Dr. Walter Dill
 Scudder, Mrs.
 Lawrence W.
 Scudder, W. M.
 Scully, Miss Florence E.
 Sears, Kenneth C.
 Seaton, G. Leland
 Sellers, Mrs. O. R.
 Selz, Emanuel
 Seneary, Dr. F. E.
 Senior, Mrs. John L.
 Seubold, Dr. F. H.
 Sexton, Mrs. Thomas G.
 Shaffer, Mrs. Norman P.
 Shanahan, David E.
 Shanks, Oscar
 Shanner, Robert B.
 Shapiro, J. F.
 Sharp, Mrs. W. L.
 Shaw, Mrs. A. W.
 Shaw, Mrs. J. G.
 Shaw, Mrs. Walter A.
 Shay, John B.
 Sheahan, Miss Marie
 Sheil, Mrs. James B.
 Shepard, Guy C.
 Sheridan, L. J.
 Sherman, Edwin
 Sherman, H. C.
 Sherman, Louis A.
 Sherman, Mrs. W. W.
 Shields, Balford Q.
 Shippey, Mrs. Charles W.
 Shiverick, Mrs. A. F.
 Shoemaker, W. H.
 Short, J. R.

Shortall, John L.
 Sidley, William P.
 Siebel, Mrs. E. H.
 Sieck, Herbert
 Sievers, William H.
 Silber, Clarence J.
 Silberman, Mrs. J. D.
 Sillani, Mrs. Mabel W.
 Simmons, Mrs. Charles R.
 Simons, Mrs. George H.
 Simpson, C. G.
 Simpson, Walter H.
 Siqueland, T. A.
 Sjostrom, Otto A.
 Skog, Mrs. Ludvig
 Slade, John C.
 Slaney, J. C.
 Sleight, Miss Barbara H.
 Smeeth, Mrs. Edwin E.
 Smith, Charles Herbert
 Smith, Glen E.
 Smith, Miss Helen F.
 Smith, Henry Justin
 Smith, Hermon Dunlap
 Smith, Miss Mary Rozet
 Smith, O. Jay
 Smith, Reynold S.
 Smithwick, J. G.
 Snow, Mrs. Sydney B.
 Snyder, Harry
 Solomon, Harry W.
 Somerville, Mrs. Helen
 Sontag, Edward A.
 Soper, James P., Jr.
 Soper, Thomas
 Sparrow, Mrs. W. W. K.
 Speed, Dr. Kellogg
 Speyer, Mrs. George W.
 Spitalny, H. Leopold
 Spooner, Charles W.
 Sprague, Albert A., Jr.
 Spring, Benjamin J.
 Spry, George
 Stanbury, Dr. C. E.
 Stangle, Mrs. Mary W.
 Stanley, Eben
 Staples, Miss Emily
 Steele, Leo M.
 Steele, Sidney J.
 Steffensen, Sigurd
 Stein, Mrs. Ernst
 Steinson, Henry G.
 Stensgaard, William L.
 Stephenson, Mrs.
 Elmer E.
 Stern, Mrs. Alfred
 Stern, Jacob S.
 Stevens, Miss
 Charlotte M.
 Stevens, Ernest J.
 Stevens, Mrs. Jessie L.
 Stevenson, James R. D.

Stewart, George R.
 Stewart, Mrs. Pritchard
 Stewart, William
 Stifler, Mrs. J. M.
 Stilwell, Mrs. Abner J.
 Stilwell, George L.
 Stoelting, C. H.
 Stokes, Miss Marguerite
 Storkan, Mrs. James
 Strain, Miss H. Gertrude
 Strand, Mrs. Martin
 Stransky, Hon.
 Franklin J.
 Straub, Mrs. Walter F.
 Straus, Arthur W.
 Straus, Eli M.
 Street, C. R.
 Strigl, F. C.
 Stumes, Charles B.
 Sturla, Harry L.
 Sturtevant, Roy E.
 Sullivan, Grey
 Summers, L. F.
 Sundblom, Mrs. Haddon
 Hubbard
 Sundell, Ernest W.
 Sundlof, F. W.
 Sutcliffe, Miss Sarah E.
 Swain, Miss Irene M.
 Swanson, Frank E.
 Sweet, Sidney R.
 Swift, T. Philip
 Sylvester, Miss Ada I.

 Tankersley, J. N.
 Tark, Mrs. L. S.
 Taylor, Frank F.
 Taylor, L. S.
 Teckemeyer, A. O.
 Telfer, Thomas A.
 Teller, George L.
 Temps, Leupold
 Tevander, Mrs. Olaf N.
 Tharaldsen, Mrs. H. I.
 Thomas, Charles F.
 Thompson, John, II
 Thompson, Mrs. Slason
 Thorpe, Mrs. A. H.
 Thorsness, Lionel G.
 Throop, George Enos
 Tibbetts, Mrs. N. L.
 Tift, Mrs. Henry
 Timberlake, Mrs.
 Thomas M.
 Tinling, C. F. M.
 Tippet, William M.
 Todd, A.
 Tonk, Percy A.
 Towner, Miss
 Elizabeth W.
 Towner, Frank H.
 Trausch, Joseph H.

- Traver, George W.
 Tremain, Miss Eloise R.
 Triggs, Charles W.
 Truc, Walter
 Trude, Mrs. A. S.
 Truman, Percival H.
 Trumbull, Miss Florence
 Turnbull, Mrs. George C.
 Tuttle, Charles
 Tyson, Mrs. Howell N.
 Ullmann, Mrs. Albert I.
 Utley, George B.
 Vail, Mrs. Edward G.
 Vail, Mrs. J. H.
 Varde, C. M.
 Varty, Leo G.
 Vaughan, Mrs.
 Gordon M.
 Vaughan, Dr. Roger T.
 Vilas, Mrs. George B.
 Voorhees, Mrs. L. P.
 Vose, Mrs. Frederick P.
 Wagner, Richard
 Waite, Roy E.
 Waldeck, Herman
 Walker, James R.
 Wallach, Mrs. H. L.
 Waller, Mrs. Trigg
 Walpole, S. J.
 Walsh, Miss Mary
 Walton, Mrs. Helen R.
 Walton, Lyman A.
 Warner, Mason
 Warnesson, Miss
 Victoria
 Warren, Mrs. E. K.
 Warren, L. Parsons
 Warren, William G.
 Washburn, Dr. James
 Murray
 Wasson, Theron
 Watkins, Frank A.
 Watkins, Frederick A.
 Watkins, Jesse M.
 Watson, Vernon S.
 Webber, E. A.
 Webster, Edgar Converse
 Webster, James
 Wegg, Donald R.
 Weil, Mrs. Leon
 Weil, Mrs. Victor
 Weinress, Morton
 Weiss, Theodore O.
 Weissbrenner, Dr. R. F.
 Welch, L. C.
 Welles, Mrs. Donald P.
 Welles, Mrs. Edward
 Kenneth
 Wells, Mrs. H. Gideon
 Wendell, Miss
 Josephine A.
 Wentworth, John
 Werelius, Mrs. Axel
 West, Thomas H.
 Westbrook, Mrs. E. S.
 Wetter, Miss A.
 Albertine
 Wheeler, Edgar E.
 Wheeler, Leslie M.
 Wheeler, Seymour
 Whidden, Ray A.
 Whidden, Roswell B.
 Whiston, Frank M.
 White, W. J.
 Whitney, Mrs. Gordon
 Whitwell, J. E.
 Wickham, Mrs.
 Thomas Y.
 Wild, A. Clement
 Wilds, John L.
 Wiley, Edward N.
 Wilhelm, Frank Edward
 Wilken, Mrs. Theodore
 Wilkey, Fred S.
 Willard, Guy
 Willens, Joseph R.
 Willett, Howard L.
 Williams, Chester S.
 Williams, Lawrence
 Williamson, John A.
 Willman, Philip E.
 Wills, H. E.
 Wilson, B. L.
 Wilson, E. L.
 Wilson, Percival C.
 Wilson, Mrs. Percy
 Wilson, R. F.
 Wilson, William G.
 Wilson, William R.
 Winston, Mrs.
 Bertram M.
 Winterbotham, Mrs.
 John R., Jr.
 Winters, Mrs. L. D.
 Wise, Mrs. Harold
 Witkowski, James
 Witkowski, Leon
 Wolbach, Murray
 Wolcott, Carl F.
 Wolfe, William C.
 Wolff, Christian J.
 Wolff, Mrs. Harry G.
 Wolterding, Gerhard C.
 Wood, Donald M.
 Wood, Milton G.
 Woodcock, Mrs. L. T.
 Woods, Edward G.
 Woodyatt, Dr. Rollin
 Turner
 Woolf, Mrs. James D.
 Wootton, Robert P.
 Worth, Mrs.
 Sidney W.
 Wright, H. C.
 Wright, Quincy
 Wrisley, George A.
 Wurzburg, H. J.
 Yeakel, Dr. William K.
 Yeomans, Charles
 Young, E. Frank
 Young, Ferdinand H.
 Young, Mrs. Henry
 Young, James W.
 Young, Mrs. Joseph W.
 Younglove, James C.
 Zacharias, Robert M.
 Zane, John Maxcy
 Zbyszewski, Tytus
 Zenos, Rev. Andrew C.
 Ziff, Mrs. Belle
 Zimmermann, Mrs. P. T.
 Zintak, Frank V.
 Zucker, W. J.

DECEASED, 1933

- Burdick, Dr. Alfred S.
 Chandler, Frank R.
 Corwin, Dr. Arthur M.
 Glidden, Mrs. H. L.
 Griffin, Bennett
 Grosfield, Mme.
 Bertha M.
 Gudeman, Dr. Edward
 Heymann, Emanuel M.
 Hunter, W. Kelso
 Lester, Albert G.
 Mathews, Miss Jessie
 Moses, Ernest C.
 Neise, George N.
 Osborne, Mrs. J.
 Harrison
 Slaten, Mrs. Frederick A.
 Smith, Mrs. A. P.
 Weston, Charles V.

MAY 16 1934

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

