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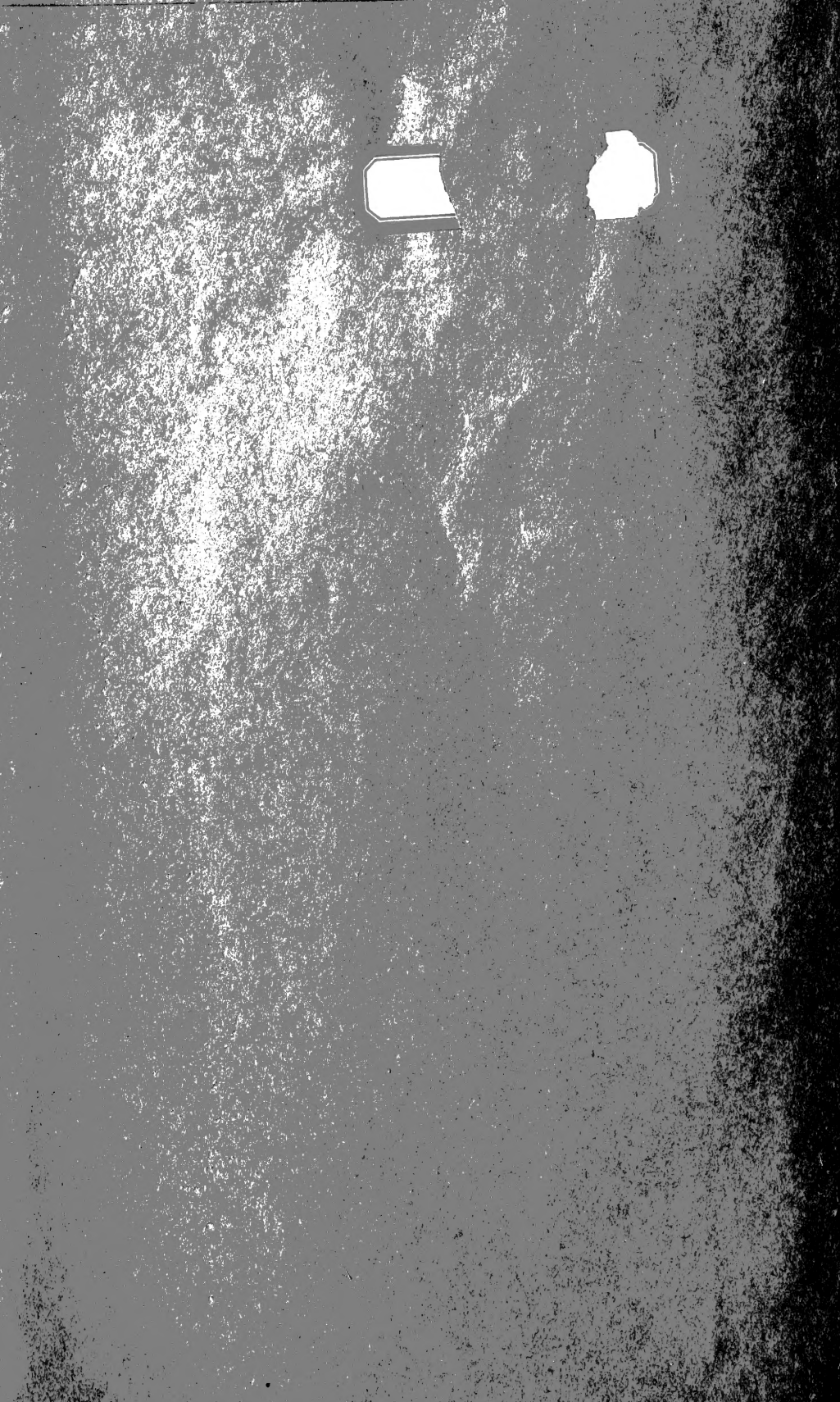
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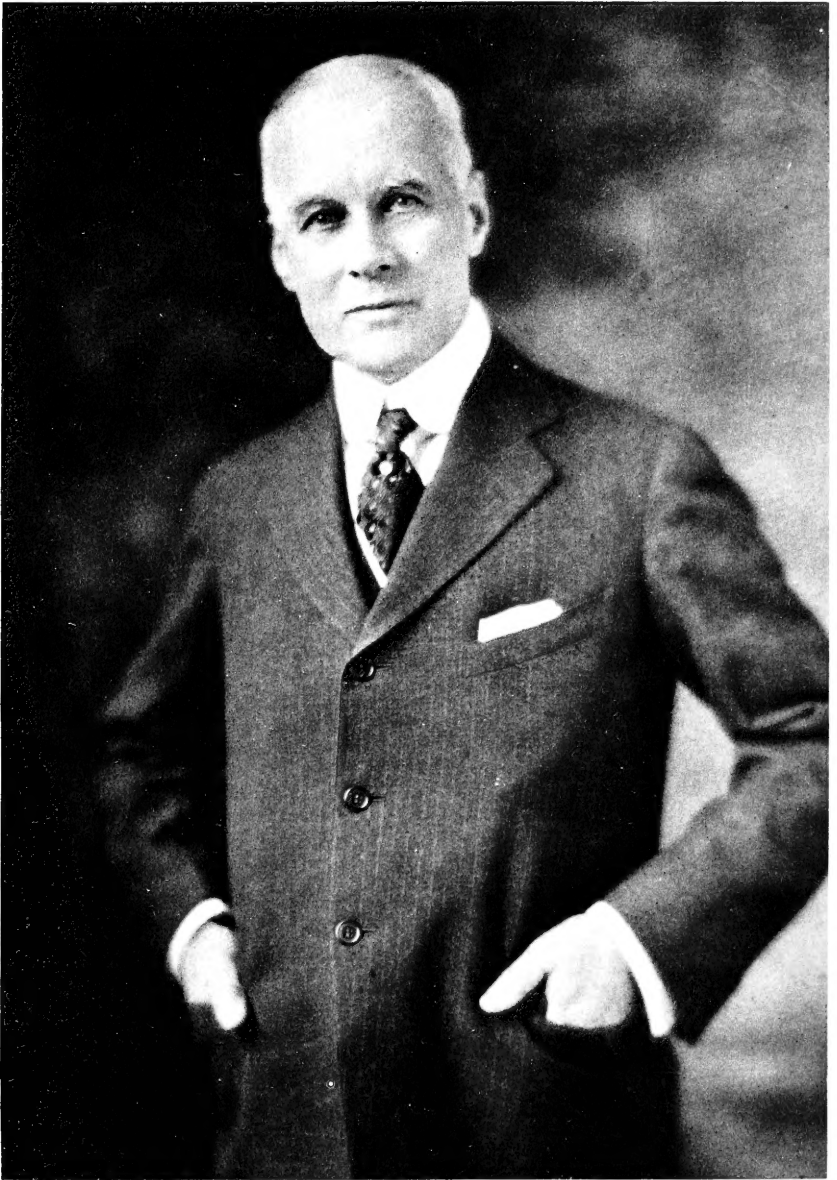
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WILLIAM J. CHALMERS.
A TRUSTEE OF THE MUSEUM SINCE ITS ORGANIZATION,
AND CHAIRMAN OF THE BUILDING COMMITTEE.

FIELD MUSEUM OF NATURAL HISTORY.

PUBLICATION 227.

REPORT SERIES.

VOL. VI, No. 4.

ANNUAL REPORT OF THE
DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1924.

THE LIBRARY OF THE

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UNIVERSITY OF ILLINOIS



CHICAGO, U. S. A.

January, 1925.

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BEQUESTS

Bequests to Field Museum of Natural History may be made in securities, money, books or collections. 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% of the tax payer's net income are allowable as deductions in computing net income under the Revenue Law.

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SECRETARY OF THE MUSEUM CORPORATION FROM APRIL, 1894, TO MAY, 1907,
AND CHAIRMAN OF THE AUDITING COMMITTEE.

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ANNUAL REPORT OF THE DIRECTOR

1924

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, 1924.

A marked increase of interest in the activities of the Institution is distinctly the outstanding feature of the year under review. The innumerable advantages offered to the public by the Museum are being daily more appreciated. The tremendous impetus and inspiration which this appreciation gives to the scientific and maintenance forces of the Museum augurs well for its future and signifies gratifying approval of its methods of disseminating knowledge and entertainment.

Details which are given in the report indicate that the affairs of the Museum are in a healthy condition and give evidence of its wide influence and extensive investigations in many fields. While the year has been a busy one and the results satisfactory, yet considering the increasing requirements and the constantly growing importance of the Museum, the fifth year of occupancy of the new building seems to demonstrate, as have each of the four previous years, the necessity for still greater effort.

The expenses of the Museum under the head of maintenance have been in excess of the budget this year. However, the large amount that was expended for fittings for the work rooms, storage areas and the laboratories, and the refinishing of all exhibition cases in the Department of Botany, are not in a sense a proper charge against maintenance. If this is taken into consideration, the expenditures have been below the budget allowance. It may seem from the evidence of this work that the building is being refurnished. This, as a matter of fact, is true in so far as the working areas on the third floor are concerned. These growing needs of the Museum and the extensive improvements and additions necessary to maintain the increasing demands of its departments, are an indication of the development of the entire Institution. More and more each year the Museum is becoming better equipped to perform all of its necessary labor, not only for technical and scientific purposes, but

for the ordinary maintenance work as well. It is now only under unusual circumstances that outside agencies need to be engaged.

The excess of expenditures over the revenue shows a deficit of \$33,000.00 for the year, which amount was voluntarily assumed by President Field. In addition to this Mr. Field has contributed during the year the sum of \$78,576.00. A part of this was directed towards the deficit existing in the Building Fund and the remainder was the stated annuity provided for the work in the Plant Reproduction laboratory.

Captain Marshall Field has increased his annuity to \$100,000.00 which enables the Museum to extend its expeditionary program and to increase the issue and enlarge the scope of its scientific publications. Of especial interest was the inauguration of two new series of publications, the first being the "Design" Series, of which two numbers were issued, and the other a publication designated as the "Memoirs" Series. The first number of the latter series was in press shortly before the end of the year.

The benefactions of Mr. Edward E. Ayer to the library which has been named in his honor, have continued, reference to which is made elsewhere. Mr. Ayer has also made notable additions to the pewter collection which also bears his name, several very important examples of this alloy having been added to the original collection. A commodious room on the second floor has been allotted to this splendid exhibit.

Mr. Arthur B. Jones has provided the funds for the purchase of an important Maori collection, which came from Captain T. E. Donne, a well-known citizen of New Zealand.

An invitation to coöperate with the American Museum of Natural History in its important survey in Mongolia has been heartily welcomed. Under the arrangements already perfected, the Museum is to share in the results of the expedition. It is earnestly hoped that this undertaking marks a beginning of a consolidation of the interests of American museums, and that it will result not only in valuable coöperation, but in the elimination of wasteful duplication of efforts.

An additional contribution of \$100,000.00 to the Harris Extension Fund, made by the family of the late Norman W. Harris, was one of the most important gifts of the year, enabling this department to increase the distribution of exhibition cases to the public schools and to provide a new distributing car. This car was placed in operation at the beginning of the fall school term. This benefaction adds to the income of the Harris Extension Fund a sum slightly over \$6,000.00 per annum.

Mr. Charles R. Crane has continued his contributions towards the publication of the work on the "Birds of the Americas." The third part of this series was issued during the year.



CEREMONIAL COSTUMES OF THE PAWNEE, SHOWING NEW METHOD OF INSTALLATION ON FORMS. HALL 5.

About one-twentieth actual size.

UNIVERSITY OF ILLINOIS

The family of the late Mr. George Manierre presented to the Museum a collection of specimens from North America, Mexico, Panama, Australia, Japan, Egypt, and Russia, consisting of prehistoric pottery, tobacco pipes, stone implements, baskets, etc., which is a most acceptable addition to the collections in the Department of Anthropology.

In appreciation of Mr. Edward E. Ayer's life-long devotion to the work of the Museum and his great liberality in adding to its collections, Mr. and Mrs. Julius Rosenwald contributed to the Museum the sum of \$25,000.00. The income from this contribution is to be used for the next ten years in filling gaps in the North American Indian collections in the Museum. At the end of this term, the income is to be devoted to the purchase of scientific books for the departmental libraries.

The progress of the Museum is further encouraged by the support received from the tax levied by the South Park Commissioners. This income is used solely for maintenance, but is not sufficient by any means to meet the present and increasing needs of the Institution.

Grateful acknowledgment is made of the courtesies extended by the Chicago Rapid Transit Company, the Illinois Central Railroad Company, the Chicago Surface Lines, the Rock Island Railroad Company, the Aurora and Elgin Electric Lines, and the department stores of Chicago, in exhibiting posters and placards directing the attention of the public to the Museum and its work.

The membership campaign inaugurated during the previous year has been highly successful. The activities in this direction have resulted in the following additions to the different classes of memberships:

Life Members	28
Associate Members.....	472
Sustaining Members.....	283
Annual Members.....	557

The By-Laws have been amended for the purpose of adding three new classes of members, viz: Benefactors, Fellows, and Non-Resident Life. Reference to the memberships newly created will be found in the amended By-Laws included in this report.

The gratifying increase in the attendance of visitors to the Museum may be accounted for in part by the canvass for memberships, but doubtless in greater measure by the publicity given to the Institution and its activities by the press and the transportation companies.

The organization of a Live Wild Flower exhibit during the summer and autumn months attracted many people to the Museum and may be spoken of as successful beyond expectation. This exhibit was suggested by the Department of Botany and has been promoted under its direction.

During the year the vacancies existing in the membership of the Board of Trustees were filled by the election of Mr. Charles H. Markham and Mr. Silas H. Strawn.

The Trustees have named the hall in which the ichthyological collections are exhibited the Albert W. Harris Hall, in honor of Mr. Albert W. Harris.

The additions to the staff during the year were as follows; H. F. Ditzel, Registrar, R. H. Thompson, Recorder, and H. Boardman Conover, Associate in Ornithology. E. S. Abbey was appointed Sergeant of the Guard to fill the vacancy occasioned by the death of Sergeant Brophy, who had been in the employ of the Museum since its inception, and who left behind him an unimpeachable record for faithfulness and devotion to duty.

Other activities initiated during the year were the inauguration of a series of summer classes for the children of members; the introduction of a series of Fellowships for research work; and the installation of a new system of lighting for habitat groups.

The trouble and annoyance experienced by the constant leaking of the sky-lighted halls demanded prompt treatment, and made necessary the decision to roof over these areas. These skylights, covering an area of 38,500 square feet, have been insulated with a double thickness of Celotex overlaid with Ruberoid roofing. This work was begun August 17, 1924 and was finished November 22nd, at a cost of \$20,250.00. This expenditure was charged to the Building Fund and necessarily increased the deficit of that account, but this, as previously reported, was assumed by President Field.

The roofing over of the skylights changed the method of lighting the halls from that of daylight to artificial lighting, but there is every indication that the artificial lighting is more suitable than daylight for the material exhibited in these areas. Not only is the illumination more uniform, but the fading effects of sunlight are avoided.

All the windows in the exhibition areas have been curtained, and this has not only improved the interior appearance of the openings, but has added to their attractiveness from the outside.

A surface drainage system has been laid in the terrace around the Museum building, and furnished with catch basins along the edge of the grass plot. The entire sidewalk surrounding the Museum has been overlaid with a top dressing of crushed limestone.

The outside steps and the flag pole steps at the north entrance have been caulked with oakum and lead wool. The outside walls of the northeast central pavilion have been caulked with elastic cement, and

the terrace balustrade and outside window sills have been repointed with Portland cement.

The death of Mr. George Manierre, a member of the Board of Trustees for thirty years, closed a career of activity and usefulness in which the Museum very largely shared. His loss is mourned by his fellow-trustees and is sorely felt by the members of the administrative and scientific staff of the Museum. As Chairman of the Auditing Committee for several years, Mr. Manierre made frequent visits to the Museum, and always manifested the greatest interest in the work of its departments. Through his frequent and intimate contact with the staff, its members learned to understand and appreciate him highly.

GENERAL LECTURES.—Two courses of lectures and three special lectures were given in the James Simpson Theatre during the year, bringing the total number of courses presented by the Museum to forty-two. The interest of the public was fully manifested by large and attentive audiences. The ready coöperation of well-known scientific men and lecturers in this work is gratifying, and occasion is here taken to thank them for their participation in these courses.

Following is the Forty-first Free Illustrated Lecture Course, with the subjects and lecturers, delivered during the months of March and April, 1924.

- | | |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| March | 1—“Glimpses of Canada—Forest, Field and Mountains.”
Mr. Frank Yeigh, Lecturer and Author, Toronto, Canada. |
| March | 8—“Explorations in the Malay Peninsula” (Arthur B. Jones Expedition, 1923).
Dr. Fay-Cooper Cole, University of Chicago. |
| March | 15—“The Royal Mummies.”
Dr. T. Wingate Todd, Western Reserve University, Cleveland, Ohio. |
| March | 22—“On the Track of an Unknown Sheep.”
Mr. John B. Burnham, American Game Protective and Propagation Association, New York City. |
| March | 29—“The Grand Canyon of the Colorado River.”
Mr. E. C. Larue, United States Geological Survey, Washington, D. C. |
| April | 5—“On Darwin’s Trail in South America” (Captain Marshall Field Expedition).
Dr. Wilfred H. Osgood, Curator of Zoology, Field Museum of Natural History. |

- April 12—"Peruvian Trails."
Dr. George S. Bryan, Department of Botany,
University of Wisconsin.
- April 19—"Journeys in Brazil."
Dr. Oliver C. Farrington, Curator of Geology, Field
Museum of Natural History.
- April 26—"The Passing of the Old West."
Lieut. Col. Charles Wellington Furlong, F. R. G. S.,
Boston, Mass.

Following is the Forty-second Free Illustrated Lecture Course, with subjects and lecturers, delivered during the months of October, November and December, 1924:

- October 4—"Wild Animals I Have Known."
Mr. Ernest Thompson Seton, Greenwich, Con-
necticut.
- October 11—"The People of Japan."
Dr. William Elliot Griffis, New York City.
- October 18—"Six Thousand and One Minutes in Galapagos."
Dr. William Beebe, Department of Tropical Re-
search, New York Zoological Society.
- October 25—"Tribes of Sumatra" (Arthur B. Jones Expedition,
1923).
Dr. Fay-Cooper Cole, leader of the expedition.
- November 1—"The Gateway of the Sahara."
Lieut. Col. Charles Wellington Furlong, F. R. G. S.,
Boston, Mass.
- November 8—"The Wonders of Wood."
Professor Samuel J. Record, Yale University, New
Haven, Conn.
- November 15—"Spain and the Alhambra."
Mr. B. R. Baumgardt, Los Angeles, California.
- November 22—"Babylon as a Center of Civilization, with Special
Reference to the Excavations at Kish, under-
taken by the Field Museum-Oxford University
Joint Expedition under the auspices of Capt.
Marshall Field."
Professor Ira M. Price, University of Chicago.
- November 29—"The Man-Eaters of Tsavo."
Lieut. Col. J. H. Patterson, D. S. O., London.

- December 6—"Among the Blackfeet Indians."
Mr. Walter McClintock, M. A., Pittsburgh, Pennsylvania.

The following are the three special lectures delivered during the year:

- March 30—"Hunting Gorillas and Volcanoes in Kivu."
Mr. Carl E. Akeley, American Museum of Natural History, New York.
- June 1—"Where the Dinosaur Hid its Eggs."
Mr. Roy Chapman Andrews, leader of the Third Asiatic Expedition, American Museum of Natural History, New York.
- December 20—"The Tomb of Tut-an-akh-Amen."
M. Jean Capart, Director, Royal Cinquantenaire Museums, Brussels, Belgium.

ENTERTAINMENTS FOR CHILDREN.—Moving picture entertainments for children were given in the James Simpson Theatre on Saturday mornings during the Spring and Autumn months. The interest manifested in these pictures is indicated by the total attendance of 34,327 children. Beginning at 9:30 o'clock in the morning, the pictures were shown continuously until 12:30 P.M. In connection with the Autumn course, twelve "Museum Stories for Children" were prepared and issued by the Museum. These stories were distributed to the children, one at each entertainment. Their three-fold purpose was, to supplement the films in the matter of information, to direct the children to Museum exhibits related to the subject of the films, and to provide the children with a souvenir of their visit to the Institution.

The programs for the courses, including one special lecture, were as follows:

- March 1—"Hunting Big Game in Africa." First five reels.
- March 8—"Hunting Big Game in Africa." Last four reels.
"Time—What It Really Is."
- March 15—"The Ant."
"Birds of Prey."
"Animal Camouflage."
"Wild Animals and Their Young."
"Earth and Moon." Part I.
- March 22—"Wonders of the Sea."
"Earth and Moon." Part II.

- March 29—"First Families of America" (Hopi Indians).
 "Wild Life Studies: North America."
 "Forest Giants."
 "Nature's Craftsmen."
- April 5—"The Bee."
 "Our Four-footed Pals."
 "From Cocoon to Kimono" (The Silk Worm).
 "The American Fishhawk."
 "The Story of the Seasons—Why They Change."
- April 12—"The Great White North."
 "Aquatic Life."
- April 19—"Our Animals—How They Help Us."
 "The Spider."
 "The Microscope and Beyond."
- April 26—"The Cruise of the Speejacks Around the World."
- May 3—Special Lecture: "Maoriland."
 Leila M. Blomfield, New Zealand.
- October 4—A Lecture: "Wild Animals I Have Known."
 Mr. Ernest Thompson Seton.
 *"Animal and Bird Life."
 "Bre'r Rabbit and His Pals."
 "White-tailed Deer."
- October 11—"Captain Kleinschmidt's Polar Adventure."
- October 18—"Children Here, There and Everywhere."
 "All Sorts of Jellyfish."
 "Some Well-known Snakes."
 "Hawks and Buzzards."
 "Sloths and Marmots."
- October 25—"Baby Songbirds at Mealtime."
 "Why Elephants Leave Home."
 "Pond Life."
 "Insects that Mimic."
- November 1—"Trailing African Wild Animals."
- November 8—"Along the Moonbeam Trail" (Prehistoric Animals).
 "Ant Lion."
 "Navaho Indians."
 "In a Drop of Water."
- November 15—"Birds of Passage."
 "Yosemite, the Valley of Enchantment."



THE WILD FLOWER EXHIBIT IN STANLEY FIELD HALL.

UNIVERSITY OF ALABAMA

- November 22—"Lady Bird."
 "Lizards from Everywhere."
 "Hummingbirds and Eagles."
 "Butterfly."
 "How Plants are Born, Live and Die."
- November 29—"The First Americans" (Plains and Hopi Indians).
 "Our Four-footed Helpers."
 "Odd Members of the Crab Family."
 "Parrots and Cuckoos."
 "Plants with Nerves and Stomachs."
- December 6—"Columbus."
- December 13—"Sea Worms and Sea Urchins."
 "Toad Traits."
 "All About Carrier Pigeons."
 "A Visit to the New York Zoo."
 "Finest on Four Feet" (Dogs).
- December 20—"Nanook of the North."

* Grateful acknowledgement is made to Doctor Thomas W. Roberts, Director of the Zoological Museum of the University of Minnesota, for the loan of moving pictures marked with an asterisk.

PUBLICATIONS

A new series of publications was inaugurated during the year, which is designated as the Design Series. It is intended to render accessible in convenient form the artistic designs of primitive and oriental peoples from the rich stores in the Museum collections. The series is especially planned for the needs of teachers and pupils of public, high, technical and art schools, but should also appeal to professional designers, craftsmen, manufacturers, and students of art. The series demonstrates also that the Museum is able to render service to the industrial arts. In the regular publication series eight numbers were issued, most of the numbers being of the Zoological Series. In the new Design Series two numbers were issued and seventeen numbers were added to the general leaflet series.

Following is a list of the publications and leaflets issued during the year:

- Pub. 216—Anthropological Series, Vol. XVI. Japanese Sword-Mounts. By Helen C. Gunsaulus. December, 1923. 196 pages. 61 photogravures. Edition 1,065.

- Pub. 217—Report Series, Vol. VI, No. 3. Annual Report of the Director for the year 1923. January, 1924. 99 pages. 16 photogravures, 1 zinc etching. Edition 3,000.
- Pub. 218—Zoological Series, Vol. XII, No. 4. New Birds from Central Peru. By John T. Zimmer. April, 1924. 20 pages. Edition 993.
- Pub. 219—Zoological Series, Vol. XII, No. 5. New Birds from Chile. By C. E. Hellmayr. April, 1924. 8 pages. Edition 1,109.
- Pub. 220—Zoological Series, Vol. XII, No. 6. Notes on Central American Crocodile. By Karl P. Schmidt. May, 1924. 16 pages. 5 halftones. Edition 1,050.
- Pub. 221—Zoological Series, Vol. XII, No. 7. New Salamanders of the Genus *Ædipus* with a Synoptical Key. By E. R. Dunn. May, 1924. 8 pages. Edition 1,000.
- Pub. 222—Zoological Series, Vol. XIV, No. 2. Revision of Living Caenolestids with Description of a New Genus from Chile. By W. H. Osgood. October 20, 1925. 10 pages. 1 zinc etching. Edition 1,100.
- Pub. 223—Zoological Series, Vol. XIII, Part III. Catalogue of Birds of the Americas. By C. B. Cory. Revised and continued by C. E. Hellmayr. November 20, 1924. 372 pages. 1 colored plate. Edition 1,547.

DESIGN SERIES

- Anthropology Design Series, No. 1. Block Prints from India for Textiles. By A. B. Lewis. 24 plates, 2 of which are in colors, and 2 text-figures. Edition 3,076.
- Anthropology Design Series, No. 2. Javanese Batik Design from Metal Stamps. By A. B. Lewis. 24 plates, 2 of which are in colors, and 2 text-figures. Edition 3,050.

LEAFLETS

- Anthropology, No. 12. Japanese Costume. By Helen C. Gunsaulus. 4 photogravures. 26 pages. Edition 3,014.
- Anthropology, No. 13. Gods and Heroes of Japan. By Helen C. Gunsaulus. 4 photogravures. 24 pages. Edition 3,010.
- Anthropology, No. 14. Japanese Temples and Houses. By Helen C. Gunsaulus. 4 photogravures. 20 pages. Edition 3,010.

- Anthropology, No. 15. Use of Tobacco among North American Indians. By Ralph Linton. 6 photogravures. 27 pages. Edition 3060.
- Anthropology, No. 16. Use of Tobacco in Mexico and South America. By J. Alden Mason. 6 photogravures. 15 pages. Edition 3035.
- Anthropology, No. 17. Use of Tobacco in New Guinea and Neighboring Regions. By Albert B. Lewis. 2 photogravures. 10 pages. Edition 3030.
- Anthropology, No. 18. Tobacco and Its Use in Asia. By Berthold Laufer. 10 photogravures. 39 pages. Edition 2984.
- Anthropology, No. 19. Introduction of Tobacco into Europe. By Berthold Laufer. 66 pages. Edition 3031.
- Anthropology, No. 20. The Japanese Sword and Its Decoration. By Helen C. Gunsaulus. 4 photogravures. 21 pages. Edition 3037.
- Botany, No. 4. Cacao. By B. E. Dahlgren. 2 photogravures. 3 text-figures. 14 pages. Edition 3037.
- Botany, No. 5. A Fossil Flower. By B. E. Dahlgren. 6 halftones. 4 zinc etchings. 16 pages. Edition 3078.
- Botany, No. 6. The Cannon-Ball Tree. By B. E. Dahlgren. 6 photogravures. 8 pages. Edition 3050.
- Botany, No. 7. Spring Wild Flowers. By J. Francis Macbride. 2 photogravures. 28 halftones. 32 pages. Edition 6033.
- Botany No. 8. Spring and Early Summer Wild Flowers. By J. Francis Macbride. 2 photogravures. 28 halftones. 30 pages. Edition 6050.
- Botany, No. 9. Summer Wild Flowers. By J. Francis Macbride. 1 color plate. 2 photogravures. 28 halftones. 30 pages. Edition 6050.
- Botany, No. 10. Autumn Flowers and Fruits. By J. Francis Macbride. 1 color plate. 2 photogravures. 28 halftones. Edition 6025.
- Zoology, No. 6. The Wild Turkey. By John T. Zimmer. 1 photogravure. 15 pages. Edition 3055.

LIBRARY

There have been accessioned during the year 2,852 books and pamphlets. The aggregate number at the close of the year was 84,555. Many valuable and important books have been added to the Library by gift, purchase and exchange. Especially noteworthy has been the acquisition of various sets, for a long time among the desiderata of the Library, as follows: Report of H. M. S. Challenger Voyage 50 volumes; Transactions of the Zoological Society of London, 20 volumes; Der Naturforscher, 10 volumes, 1774-1804; Dansk Ornithologisk Tidsskrift, 17 volumes;

Mitteilungen des Ornithologischen Vereins in Wien, 20 volumes, 1877-1901; Larousse, Grand dictionnaire universelle, 20 volumes; and Encyclopaedia Americana, 30 volumes. The number of books purchased has exceeded that of recent years, and these very essential aids in their work have been greatly appreciated by the members of the staff. Among the important books purchased are the following:

- Hamilton, Maori Art. Céramique Ancienne du Pérou.
- Hobson, Art of the Chinese Potter.
- Binyon-Sexton, Japanese Color Prints.
- Durante, Herbario Nuovo, Rome, 1585.
- Knuth, Handbook of Plant Pollination.
- Gloger, Vögel Europas, 1834.
- Temminck, Histoire Naturelle des Pigeons, 1813-15.
- Brünnich, Ornithologica Borealis, 1764.

Through the continued generosity and interest of Mr. Edward E. Ayer, a number of rare and classic books in ornithology have been secured. A total of 473 volumes were added to the Edward E. Ayer Ornithological Library. Among those received are finely illustrated copies of the following:

- Mme. Knip, Les Pigeons, 2 volumes, 1838, 1843.
- Bonaparte, Iconographie des Pigeons, 1857.
- Thorburn, Game Birds and Wild Fowl of Great Britain, 1923.
- Edwards, Natural History of Birds, 1743-1751.
- Hahn, Deutschlands Vögel, 1835.
- Naumann, Naturgeschichte der Vögel Deutschlands, 14 volumes, 1822-1860.
- Reichenbach, Naturgeschichte der Vögel, 13 volumes, 1834-1863.
- Pennant, British Ornithology, 4th edition, 1776-1777.
- Vieillot, Histoire Naturelle des Plus Beaux Oiseaux Chanteurs, 1805.
- Dawson, Birds of California, 4 volumes, 1924.
- Audubon, Ornithological Biography, 1831.
- Rüppell, Neue Wirbelthiere, 2 volumes, 1835-1840.
- Mikan, Delectus Florae et Faunae Brasiliensis, 1820.
- Phillips, Natural History of the Ducks, 1922-1923.

Mr. Ayer has also enlarged and enriched the ichthyological collection by the purchase of 147 volumes, among which are the following rare sets in complete volumes:

- Agassiz, Recherches sur les Poissons Fossiles, 10 volumes in 6.

THE UNIVERSITY OF
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MAIN CHAMBER OF THE MASTABA TOMB OF UNIS-ANKH, WITH DOORWAY LEADING INTO AN OUTER CHAMBER.
PRESENTED BY MARTIN A. RYERSON.

- Bleeker, *Atlas ichthyologique des Indes Orientales Néerlandaises*, 9 volumes, 1862-1872.
- Bloch, *Ichthyologie ou Histoire Naturelle Générale et Particulière*, 1785-1797.
- Cuvier and Valenciennes, *Histoire Naturelle des Poissons*, 1828-1849.
- Boulenger, *Zoology of Egypt: The Fishes of the Nile*, 1907.
- Donovan, *Natural History of the British Fishes*, 1802-1808.
- Goode and Kilbourne, *Game Fishes of the United States*, 1879.
- Kroyer, *Danmark's Fiske*, 3 volumes in 4, 1826-1853.
- North, *History of Esculent Fishes*, 1794.
- Richardson, *Zoology of the Voyage of H. M. S. Samarang. Fishes*. 1848.
- Russell, *Descriptions and Figures of Two Hundred Fishes*, 1803.
- Semon, *Zoologische Forschungsreisen in Australien und dem Malayischen Archipel*, 5 volumes in 7, 1893-1903.
- Volta, *Ittiolitologia Veronese del Museo Bozziano*, 3 pts. in 2 volumes, 1706-1809.

These accumulating gifts, especially of the out of print works, are most useful to the present day scientist and they will undoubtedly prove of great value to the student and scholar in the years to come. In addition to these important gifts, other valuable contributions have been received that, aside from their intrinsic value, are especially appreciated because of the interest thus evidenced in the welfare of the Museum Library. Exchange relations have been reestablished with practically all of the institutions on the publication mailing list, and publications have been received during the year from seven hundred and twenty-three governments, societies and individuals.

There were written and inserted in the different catalogues 11,710 cards. The growth of the departmental libraries necessitates the writing in duplicate of author cards for all the books sent to these libraries. Monthly installments of from four to six hundred cards have been received and filed from the John Crerar Library.

Early in the year all of the books in the General Library were removed from the shelves and thoroughly cleaned. A general rearrangement of the books was necessary in order to accommodate current accessions. To further insure the preservation of the books in leather bindings approximately fourteen thousand volumes were furbished and oiled. This work was done by expert bookbinders from the Monastery Bindery. There were sent to and returned from the bindery during the year 924 volumes.

The departmental libraries now present an appearance of order and system that, because of the exigencies of moving, has taken some time to attain. These libraries have been more conveniently located by moving them into rooms adjoining the offices of the Curators of the various departments. These rooms have all been freshly decorated and furnished with new stacks and cases which greatly add to their usefulness and appearance.

DEPARTMENTAL CATALOGUING, INVENTORYING AND LABELING

ANTHROPOLOGY.—In the Department of Anthropology the work of cataloguing has been continued as usual, the number of catalogue cards prepared during the year totaling 4,306. These cards are distributed geographically as follows: North American ethnology 65; South American archaeology and ethnology 1,455; Polynesian ethnology 1,282; Tasmania and Africa 10; Federated Malay States 408; Ancient Egypt 17; Greece and Miletos, Asia Minor 19; Kish, Mesopotamia 120; China, Japan, and Korea 747; Burma 1; and Edward E. Ayer pewter collection 181. Of these cards 3,898 have been entered in the inventory books of the Department, which number 42. The 2,053 catalogue cards for accessions received in 1923 were also entered, bringing the total of catalogue cards entered to 5,951. The number of accessions received during the year amounts to 60, of which 30 have been entered. There were also 20 accessions from previous years tabulated. The total number of catalogue cards entered from the opening of the first volume is 163,889. Several thousand labels for exhibition material were prepared and installed in the cases, the number of labels supplied by the printer totaling 3,226. These labels are distributed as follows: China 1,123; Edward E. Ayer pewter collection 739; American Indians 679; Kish, Mesopotamia 307; Classical archaeology 218; Egypt 109; Malaysia 36; Japan 9 and miscellaneous 6. The printer supplied the department with 7,000 catalogue cards, 300 accession envelopes, 423 case numbers, and 526 cards for the study collections. There were prepared 450 label cards, which were added to the label-file. To the Departmental albums 182 photographs were added and three new albums started; one for photographs from the Federated Malay States; one for postal cards, and one for the prints of lantern-slides.

BOTANY.—In the Department of Botany catalogue, 16,761 entries were made during the year, and 4,067 carried over from the previous year, bringing the total number of catalogued specimens in the depart-

ment to 550,076. The entries added to the department index to collectors number 217, and to the index of geographic localities 53.

Many labels were prepared during the year and placed in the exhibition halls. In the herbarium thousands of labels and genus covers were provided, particularly for algae, lichens and fungi, in connection with the Cryptogamic Herbarium, and likewise for economic specimens. Of printed labels, 1,608 were received from the Section of Printing.

GEOLOGY.—The catalogue entries in the Department of Geology during the year number 9,668. The majority of these were of invertebrate fossils of the Borden collection, the cataloguing of this collection having been continued. Other series catalogued were a part of the specimens collected by the Curator in Brazil and all current accessions. Some previously unrecorded specimens found in revising the study collection were also entered. A total number of 649 labels were written, 27 of these being descriptive. The descriptive labels related to exhibited minerals, phases of physical geology, fossils and some other newly placed exhibits, the smaller labels were for minerals, fossils, ores, etc. Sixty labels were provided for the maps and atlases filed in cases. Typewritten labels numbering several thousand were also prepared and placed with the corresponding specimens in the study collection. To the Department photograph albums 364 prints were added, making a total of 4,416. The additions were chiefly of photographs made by the Curator in Brazil.

ZOOLOGY.—Considerable progress has been made during the year by the Department of Zoology in the cataloguing of specimens. The total number of regular entries made were 3,782 distributed as follows: Mammals, 1,479; Birds, 154; Reptiles and Amphibians, 1,141; Fishes, 994; Insects, 14. In addition to these entries in the serial catalogues, there were made 2,390 entries in the index catalogue of reptiles and amphibians which is now complete for all the identified frogs, salamanders, turtles, crocodiles and lizards. A large number of cards were also written for the index catalogue of mammals, the number of entries in the different catalogues for the year thus reaching a total well over six thousand. Labeling specimens was to a large extent coincident with cataloguing and nearly all specimens recorded were also labeled, as well as many others, especially in the divisions of mammals and of reptiles. Besides the skins of mammals labeled, all cleaned skulls were carefully numbered and labeled. Photographs and lantern slides to the number of 675 were labeled and filed in the Department.

The following table shows the work performed on catalogues and inventories in the various Departments:

	Number of Record Books	Total No. of entries to Dec. 31, 1924	Entries during 1924	Total No. of cards written
Department of Anthropology	42	163,889	5,951	164,297
Department of Botany	63	550,076	20,828	8,400
Department of Geology	26	163,588	9,672	6,822
Department of Zoology	40	112,453	3,782	37,359
The Library	14	145,245	11,601	329,627

ACCESSIONS

ANTHROPOLOGY.—The accessions received during the year by the Department of Anthropology amount to 60; of these, 50 are by gift, 3 by exchange, 2 by purchase, 4 as the result of Museum expeditions, and 1 representing loan material returned from Hull House. The most important collection coming from an expedition represents the first results of the Field Museum-Oxford University Joint Expedition engaged in the excavation of Kish, Mesopotamia. The material received this year illustrates very vividly the life and earliest culture of the ancient Sumerians who preceded the Semites in the Euphrates Valley. It is particularly rich in pottery vessels, consisting of 82 complete jars and 166 sherds with stamped and incised designs, which promise to be of great significance for the study of primitive decorative art. Flint and other stone implements, a stone door-post, a stone mortar with pestle, numerous copper tools, weapons, and dishes, bone and iron implements, a silver cup, silver bracelets and bosses worn as jewelry, 27 cylinder seals with engraved designs, 14 necklaces of lapis lazuli, rock-crystal, agate and carnelian beads, 40 clay figures representing mythological subjects and animals, four large stamped bricks, and nine tablets and cones covered with cuneiform inscriptions are other prominent features of the collection. One of the stamped bricks comes down from the twenty-first century B.C. and contains an inscription of Samsu-iluna, "king of Babylon and Kish, king of the four regions," who records his restoration of the stage-tower of Kish for the god Ilbaba and the goddess Ishtar. Reproductions of a stylus for writing, said to be the only writing instrument ever discovered in Babylonia, and of a pictographic stone tablet, both believed to date *ca.* 4,600 B.C., were sent by Prof. S. Langdon of Oxford. The total number of specimens received to date from this expedition amounts to 634. The last installment of the collections made in Colombia by former Assistant Curator Mason, under the auspices of

Captain Marshall Field, and accessioned last year was received in March in 32 cases. The material includes a great number of large pottery vases and stone implements. A stone axe, a slate celt, and a projectile point coming from Chile were received from the Captain Marshall Field Zoological Expedition to Chile and Argentina. A human skull and five flint implements associated with it were found in the Territory of Santa Cruz, Argentina, by the Captain Marshall Field Palaeontological Expedition to Argentina.

A very important acquisition of the year is represented by the well-known New Zealand collection of Captain T. E. Donne, presented by Mr. Arthur B. Jones. It includes prominent examples of Maori feather and flax robes, wood carvings, ornaments and weapons, and an unusually complete series of stone implements. Many of the objects are of types no longer obtainable in New Zealand. The collection is especially rich in jade, there being no less than 563 ornaments and implements of this stone. These include practically all the known forms of Maori jade work, together with unfinished artifacts and the tools used in their manufacture. This accession, together with the collections formerly acquired by the Museum, places the institution in the foremost rank as to Maori collections in the United States. A large Maori adze of unusually fine green jade was purchased from Mrs. J. F. Hoffman. A carved gable ornament from a Maori house was received through exchange with Mr. W. C. Chandler. It is a rare old piece carved with stone tools. A fine old Hawaiian food bowl is the gift of Mrs. E. D. Hulbert. It is of the type used for eating *poi*, a gruel made from pounded taro. It was highly valued by its native owners, and has been skillfully repaired in several places with wooden patches, inset and polished down smoothly in the interior and exterior.

Mr. Edward E. Ayer continued his efforts to make his collection of pewter as representative as possible, with the result that 115 objects were added to his already substantial gift of 324 specimens of pewters during the preceding year. These 115 objects were received in sixteen separate lots, covering a period from January 18th to December 10th. This indication of Mr. Ayer's unremitting enthusiasm in assembling such numerous and excellent examples from many parts of the world is gratefully acknowledged. England and Germany are represented with 42 specimens in these new accessions, China with 66, Japan with 7. To these a pitcher from Strasbourg, Alsace, was added by Mrs. Edward E. Ayer. From an archaeological viewpoint the most interesting acquisition is a Chinese pewter tablet of rectangular shape found in a grave of Honan Province and covered with a lengthy inscription in incised char-

acters, which yields the date A.D. 85 in the Han dynasty. An analysis made by Mr. H. W. Nichols reveals the fact that the alloy is composed of tin 19.2 per cent, lead 78.5 per cent, and zinc 1.5 per cent, and thus represents a real pewter. It was heretofore not known that pewter was manufactured in China at so early a date. This tablet may therefore claim the honor of being the oldest pewter object extant. The inscription engraved in the surface represents a deed or grant of land for the burial-place of the Governor of Tung-kün, a great scholar, who was highly esteemed by his contemporaries and who died in A.D. 84. The new acquisitions comprise fine tea-caddies made by Yazaemon of Kyoto in the eighteenth century and a number of Chinese boxes, trays, and jars inlaid with designs, scenes, and figures in brass. These are all of a high degree of workmanship and of great artistic merit, and date in the Ming period (fifteenth and sixteenth centuries). The Edward E. Ayer collection of Pewter has now grown to such proportions, that the development of Chinese pewter productions through five centuries can be clearly traced and studied to great advantage.

A very interesting collection of Chinese gourds, pottery vessels and accessories for keeping singing and fighting insects was received from Mr. Robert E. Stevenson of Peking, China. Through an arrangement made by Mr. Edward E. Ayer, who acquired the collection of Chinese pewter made by the Blackstone Expedition in 1910 for his pewter room, this new accession has been credited to the Blackstone Collections. A similar collection, relating to insects, was obtained by the Curator in China in 1923; it is now appropriately supplemented by this new acquisition, which includes many ancient pieces of the eighteenth century and many carved gourds with elaborate covers of ivory and jade, all coming from the possession of old families. These two lots combined present a perfectly unique collection, such as does not exist elsewhere. They illustrate the sentimental qualities of the Chinese, their fondness of the insect musicians with studied methods of rearing and keeping them, and their keen interest in this harmless sport. A cricket-fight, especially one in which renowned champions take part, arouses great excitement and wagering, and stirs up as strong emotions among Chinese as a prize-fight in America. Mr. Stevenson presented to the Museum an ivory insect-cage, a gourd with ivory cover, an ivory box, and a glazed jar.

A large embroidered cover of white silk made at Canton, China, in the beginning of the nineteenth century, was presented by Mrs. Frederick F. Bullen of Chicago. The embroidery, of white silk also, presents an elaborate composition of floral, animal, and bird designs, lions playing ball, kiosks, pavilions, and pagodas. A miscellaneous collection of small

objects presented by Mrs. L. M. Kneeland, Chicago, includes two interesting Chinese fans of carved and painted ivory brought to this country by a sea-captain in 1800. A fine old brass image of a standing Buddha in the attitude of preaching, from Mandalay, Burma, is the gift of Mr. F. A. Hardy of Evanston, Illinois. It is a solid cast and a statue of unusually good quality.

A notable addition was made to the Frank W. Gunsaulus Hall by Mrs. Koshichi Tsukamoto of this city, who presented the Institution with two completely dressed figures of Japanese women. They were made at Kyoto, Japan, under the direction of Mr. N. Sudzuka, whose conception of the figures is that of two unmarried sisters; society girls, dressed for the occasion of a garden-party or ready to accompany friends on an outing. The figures are skillfully carved from the wood of the kiri tree (*Paulownia imperialis*), and the faces show the aristocratic type of the best Japanese society. The color of the complexion is well reproduced by many coatings with *gofun*, a preparation of chalk mixed with powdered sea-shells, which yields a fine lustre effect. This is a laborious process that requires over a half year's time. The silk material for the dresses, of first quality, was especially woven for the occasion. The elder sister is clad with an outer garment of Kinsha-crepe decorated with colored designs partially woven in and partially embroidered. The designs represent a garden with pine and maples in an aristocratic residence, as it was popular a century ago in the Tokugawa period. The sash, the most prominent feature in a Japanese dress, is made of brocade decorated with designs of a white phoenix, chrysanthemums, and fan. The younger sister wears a dress of green Kinsha-crepe adorned with printed designs of cherry and wistaria, which were popular in the Fujiwara period. She carries a parasol of silk gauze painted with floral designs, while the elder sister is equipped with a fan and a crepe bag in lavender color.

Miss Adele Barrett of Chicago presented a valuable Japanese suit of armor, which is by far the best example of this class now in the Museum collections. It evidently belonged to a high officer of the Samurai class. The suit is made of separate laminæ of lacquered leather laced in green and red braid, and tied in place at the back and shoulders by heavy cords of red silk. Breastplate, helmet, and shoulder-pieces are decorated with painted leather and ornaments of silver and copper gilt. The front of the helmet is surmounted by the full figure of a falcon carved from silver. The sleeves are of chain-mail, and are provided with gauntlets of solid iron pieces fastened together by hinges of butterfly form. The face is covered by a mask of iron with a removable nose-piece. A signaling fan,

a sword, and a spear complete the outfit. The left tace is inscribed with a date ("sixth year of the period Shohei") corresponding to our year A. D. 1351.

A valuable collection of twenty-two old Japanese tobacco-pipes was presented by Mr. Homer E. Sargent of Pasadena. As the Museum had no pipes from Japan, this collection is especially appreciated. The pipes are of bamboo, brass, iron inlaid in silver and gold, and enamel; they are of excellent workmanship and exhibit a great variety of forms and designs. Mr. Sargent likewise presented a moose shoulder-blade used for the moose-call, a bow with seven arrows, and a pair of snow-shoes from the Yukon Territory, Canada. A collection of eighty very interesting small ivory carvings made by the Eskimo of Labrador, Canada, was purchased by the Museum.

Mrs. Joseph Adams presented several valuable miscellaneous objects consisting of a Navaho saddle blanket and silver necklace, a pair of silver ear-rings and a silver fillet of a Negro woman from Barbados, Trinidad, and baskets from China, Samoa, the Sudan, Chile, and Northwest Coast.

A red obsidian spear-head from the Yurok tribe of Humboldt County, presented by Mr. Chauncey Keep, is a welcome addition to the obsidian blades contributed last year by Mr. Chauncey Keep and Mr. Watson F. Blair jointly, and illustrated in the Annual Report for the year 1923. Mr. L. Winternitz presented a garment of the Seminole Indians of Florida and four dolls showing the modes of dressing of the same tribe.

A small American Indian collection was obtained through exchange with Mr. M. C. Chandler. It includes Iroquois garments and implements of types not previously represented in the Museum, and a number of objects from the Fox of Iowa. There are some fine examples of old bead and ribbon work, woven bags, and a feather necklace worn only by famous warriors. The complete paraphernalia of a Tlingit shaman, consisting of a bear-skin cloak, rattles, head-dresses, necklaces, and charms, was received through exchange with Lieutenant G. T. Emmons. The Museum has few ceremonial objects from this tribe, and the shaman's outfit forms an important addition. A large Chilkat blanket, in perfect condition and differing in design from those in the possession of the Museum, was presented by Mrs. James W. Scott. A Comanche woman's costume of white-beaded buckskin was secured through exchange with A. Skinner. It is a novel type hitherto unrepresented in the collections.



NORTH AMERICAN CATS.

INSTALLED FOR SYSTEMATIC EXHIBIT OF MAMMALS.

TAXIDERM BY JULIUS FRIESSER.

Length of case 12 feet.

THE UNIVERSITY OF CHICAGO

APR 1 1976

LIBRARY OF THE UNIVERSITY OF CHICAGO

BOTANY.—The largest accessions in the Department of Botany during the year were the Zenker, Kamerun, collection by purchase from Museum d'Histoire Naturelle, Paris, containing, approximately, 5,000 specimens, and a collection of 4,000 Philippine plants from A. D. E. Elmer, Manila. Other collections acquired by purchase were 839 Peruvian plants from Dr. A. Weberbauer of Lima; a collection of 539 specimens from Santa Cruz, Bolivia, from Jose Steinbach; 548 plants of British Guiana from Dr. H. A. Gleason of New York Botanical Garden; 302 specimens from Santa Cruz, collected by Dr. E. Werdermann of Santiago de Chile; 375 numbers from W. E. Broadway of Port of Spain, Trinidad; 206 Mexican plants from T. S. Brandegee, University of California; 360 of various European collectors from Theo. Weigel, and 100 specimens from the Canaries from O. Burchard, Teneriffe. A gift of 150 herbarium specimens was received from Prof. E. B. Payson, Laramie, Wyoming; 58 from Prof. S. J. Record of the Yale School of Forestry; 30 from Dr. C. R. Ball, Washington; 4 from Dr. J. N. Rose, Washington, and 12 from Dr. E. E. Sherff, Chicago.

By exchange there were received during the year from the Gray Herbarium 587; the Royal Botanic Gardens, Kew, England, 335; and from the United States Department of Agriculture 1,634, making a total of 2,556 numbers. There were received 500 herbarium specimens from the Captain Marshall Field Paleontological Expedition in Patagonia collected by E. S. Riggs. The collections made by A. C. Persaud in British Guiana are also credited to a Captain Marshall Field Museum Expedition. Of the 772 specimens 87 are pieces of tropical woods of great value, being accompanied in each case by abundant herbarium material collected at the same time and from the identical tree yielding the wood. From Brazil 16 economic specimens, collected by Dr. O. C. Farrington on the Captain Marshall Field 1924 Brazilian Expedition, were received. The department sent out in exchange 2,266 herbarium specimens during the past year. Loans made to other herbaria number 42, involving 4,349 specimens, while 1,202 herbarium sheaths were borrowed from 13 other institutions for study in the Museum.

GEOLOGY.—The Department of Geology is indebted to Hon. Stephen T. Mather and Messrs. Ford and Byron Harvey for the gift of two valuable stone slabs showing fossil tracks. These slabs, having a total area of ten square feet, show well-preserved tracks of some amphibians of the Carboniferous period. They were collected on the Hermit Trail at Grand Canyon, Arizona. They are of interest, not only for their degree of preservation, but for their record of early amphibian life. It is a

pleasure to acknowledge the kind offices of Mr. Edward E. Ayer in connection with this gift. By gift from Mr. William J. Chalmers twenty-eight specimens of crystallized minerals were added to his previous generous contributions to the collection of crystals. Especially worthy of mention are two fine specimens of the rare and beautiful mineral, diopside. A cut Persian turquoise of remarkable size, weighing 234.7 carats, was presented by Mr. H. H. Topakyan. Two teeth of especially large size of the fossil mammoth found in Snake River, Idaho, were presented by Mr. H. S. Burroughs. The Indiana Limestone Quarrymen's Association presented a full series, numbering twenty-one specimens, of the varieties of Indiana limestone used in building. Before presenting the specimens the Association obtained full information from the Museum as to the size and finish desired, and prepared the exhibit in accordance with these specifications. Three specimens showing the interesting phenomena of stylolites were also presented by this Association. Several new varieties of candles and of oils presented by the Standard Oil Company (Indiana) make a desirable addition to the representation of petroleum products. A number of specimens of a new occurrence of axinite and some other minerals were collected by Associate Curator Nichols while on a trip to the Porcupine gold mining region, Canada, and a total number of nine specimens of telluride gold ores from the same region were presented by the Lake Shore Mines, Ltd. and the Wright-Hargreaves Mines, Ltd.

By exchange with the U. S. National Museum a full-sized section of the Four Corners meteorite, and a cast of the same, were acquired, and by exchange with Henry E. Lee, 20 specimens of fossil plants of Lower Cretaceous age from South Dakota.

The most important accession by purchase was that of three skeletons of duck-billed dinosaurs. These are forms which have not hitherto been represented in the Museum and come from a new faunal horizon, that of the Kirtland shales of Upper Cretaceous age in New Mexico. The skeletons are nearly complete and will provide good mounts. One skull is remarkable for its size, being four feet in length. A series of six casts representing restorations of fossil horses, obtained by purchase, aids in interpreting the relations of the incomplete specimens of these horses now on exhibition. To the meteorite collection an entire stone meteorite of a recent fall from Kansas weighing eleven pounds, was added by purchase, as well as an individual of the Ness City, Kansas, fall weighing three pounds.

From the Capt. Marshall Field Paleontological Expedition to Argentina there were received during the year 82 boxes and 12 barrels of

specimens collected by the Expedition. The shipments included archeological, botanical and zoological specimens which were unpacked and distributed to the corresponding departments of the Museum. The remaining specimens for the most part have been retained in their original packages, and are being unpacked only as they are needed for preparation for exhibition.

ZOOLOGY.—The total accessions in the Department of Zoology number 10,414, the larger part being the result of gifts and purchases rather than expeditions, since no shipments arrived from the principal expedition in the field during the year. The specimens accessioned comprise the following: Mammals, 571; birds, 3,155; eggs and nests, 165; reptiles and amphibians, 1,682; fishes, 955; insects, 3,876. Of the 218 mammals purchased, 104 were from central Europe, 62 from West Africa, and the remainder from South America.

The most extensive gift received by the Division of Birds consisted of 880 birdskins, 43 sets of eggs and 30 nests, presented by Mr. J. Grafton Parker of Chicago. The collection was assembled from 1885 to 1895 or 1897, mostly in Illinois, Indiana and Wisconsin, with some material from Texas, California, and scattered localities elsewhere. Many of the Illinois birds were taken in localities that now form solidly built sections of the city of Chicago. Besides those which thus have a historical interest, there are a number of local rarities and other desirable specimens, including two examples of the extinct Passenger Pigeon. Another gift of local interest is that of a nest and egg of the Passenger Pigeon, presented by Judge R. Magoon Barnes, one of the very few nests of this bird that are known to be preserved.

Important purchases of birds include a collection of 390 specimens from northeastern Brazil, in which there is much material new to the Museum and some forms probably undescribed in ornithological literature. Among the especially desirable species are *Avocettula recurvirostris*, *Todirostrum illigeri*, *T. schulzi* and *Pachysylvia rubrifrons*. A further purchase of 297 European birds was made, supplementing the larger collection obtained from the same region in 1923. Small lots of birds were received from various sources and, taken all together, the new bird material for the year represents a wide range of territory including the following countries: Australia, New Guinea, Japan, Korea, India, Ceylon, Formosa, Turkestan, Loo Choo Islands, Germany, Portuguese Guinea, Uganda, Cape Colony, West Indies, Costa Rica, Panama, Colombia, Ecuador, Peru, Chile, Argentina, Bolivia, Brazil, British Guiana, Venezuela, Canada, and various parts of the United States.

In the Division of Reptiles, important gifts were 115 living reptiles, together with vivaria and aquaria, from the Davis Dry Goods Company of Chicago; 150 specimens from Panama, presented by Dr. W. C. Allee of the University of Chicago; 3 salamanders from Robert B. Ekvall of Kansu, China; 78 salamanders from E. B. Steen and B. B. Crane of Wabash College; and two paratypes of a Santo Domingan tree frog from the American Museum of Natural History.

Although no expeditions especially seeking reptiles were in the field, considerable accessions of this group of animals were received from expeditions having other things as their primary object. The Captain Marshall Field Expedition to Chile contributed 491 specimens, the Captain Marshall Field Geological Expedition to Brazil and Argentina 44 specimens, and the Captain Marshall Field Expedition to Texas 55 specimens. Chinese reptiles to the number of 158 were accessioned, being the first installment of a division of the collections of the Third Asiatic Expedition of the American Museum of Natural History. These specimens are from collections already made by the Expedition, and are being received in partial exchange for the work of Assistant Curator Schmidt in preparing a scientific report on them. Therefore, they are not necessarily concerned in any division of subsequent collections of the Third Asiatic Expedition under the cooperative agreement.

Accessions of fishes were 955 specimens, not a large number for this group of animals, but the proportion that is especially preserved for exhibition purposes is unusually large. The Captain Marshall Field Expedition to Texas obtained no less than 121 skins and casts from fresh examples, including several species of sharks, rays and other fishes of large size. These will make it possible to place in the exhibition series excellent examples of several groups of fishes which are not now available for exhibition, or are only poorly represented. Many of the casts have a high scientific value because the method of casting retains structural details in perfect condition for study. Through the courtesy of the Booth Fisheries Company, a cast was made of an exceptionally large Lake Sturgeon. This will make it possible to compare specimens of about equal size of the Lake Sturgeon, which practically loses its bony armor with age, and the Atlantic Sturgeon, in which this armor is fully developed at all ages. Specimens of fishes were presented by the Davis Dry Goods Company, by the Lincoln Park Aquarium and by Dr. W. M. McCarty of Des Moines, Iowa. Small but important lots of fishes were obtained by purchase and exchange from New Jersey, Maryland and Florida.

Of the 3,876 insects accessioned, two-thirds consisted of exotic species. The largest and most noteworthy acquisition was a purchase of

2,160 insects of various orders from British New Guinea, the majority of them belonging to species new to the collections. Of special interest were several specimens of the largest known katydid, an insect five inches in length and having a wing expanse of nine inches. A welcome gift of 226 butterflies from Belgian Congo was received from Maj. A. M. Collins of Philadelphia. From the United States and Canada, gifts of insects included 135 butterflies and moths from Dr. C. E. Hellmayr, 175 miscellaneous insects from Mr. A. B. Wolcott, and 45 especially desirable and rather rare butterflies and moths from Dr. William Barnes of Decatur, Illinois.

EXPEDITIONS

ANTHROPOLOGY.—The operations of the Field Museum-Oxford University Joint Expedition to Kish, Mesopotamia, have been continued this year, apparently with good results. The expedition has been at work this season since October 8th, and has made progress with the fine Sumerian palace and the tablet hill. The discovery of more fragments of the fine inlay work found last year is reported by Ernest Mackay, field director and excavator, and some tablets have been recovered from Mound "W."

BOTANY.—While in Florida during the year, Dr. B. E. Dahlgren visited the Ten Thousand Islands region on the lower west coast of the peninsula. Through the generosity of the Florida West Coast Railway and Navigation Company, which placed a tug at his disposal, he was able to visit Cape Sable and the Big Mangrove at the mouth of Shark River. Some subsequent collecting in the Florida Keys yielded a number of interesting items for the Hall of Plant Life.

During five months of the year the Museum's collector in Guiana continued the collection of woody plants, particularly forest trees. His wood-specimens associated with accompanying herbarium material will make it possible to study and to assign a definite botanical status to many species of tropical woods hitherto known only by vernacular names.

GEOLOGY.—Field work of the Department of Geology has been confined during the year to that carried on by the Captain Marshall Field Expedition for Vertebrate Paleontology. The work of this Expedition has been throughout the year in Argentina and Bolivia.

In the early part of the year, studies of and collections in the geological formation known as the Deseado were carried on by the Expedition. Having finished with the locality of Coluhe Huapi, mentioned in last year's report, scouting parties were pushed northward to Rio

Chubut and northwestward through the San Bernardo range to the River Senguer, in quest of new collecting grounds.

Various small and isolated deposits of fossil mammals were discovered. Some weeks were spent in exploring the San Bernardo Hills, where dinosaurs of Cretaceous age were found in three localities. Out of deference to the Museo de La Plata, which was carrying on research in the dinosaurs of Argentina, no collections of these fossils had hitherto been made. To preserve a record of this new field, a few representative specimens of Cretaceous dinosaurs were here collected. A representative of the Museo de La Plata visited the Expedition and was allowed to make studies of these specimens and of the formation in which they were found.

The collections were brought together at Colonia Sarmiento and then packed and forwarded to the Port of Commodoro Rivadavia. The heavier equipment was also forwarded to that port and preparations made to move southward to better known collecting grounds. Some reconnoissance was made in the vicinity of Los Heras, Santa Cruz, after which the party proceeded to the coastwise exposures south of the Gulf of St. George. At Punta Casamayor some collections were made of the earliest known fossil mammals of South America. The classic locality of Punta Nava was also visited, after which the party proceeded to the richer fossil beds at La Fleche, an inland basin south of the Rio Deseado. The months of March and April were spent in making collections from these localities.

New fossil-bearing localities of the Deseado formation were discovered near Pico Truncado and near Cerro Madre y Higa. A fossil pine forest with tree trunks standing and prone, and with fossil pine cones and branches associated, was discovered in the Patagonian Beds near Cerro Madre y Higa. A valuable collection consisting of more than one hundred fossil pine cones and an equal number of specimens of associated fossil pine twigs, roots and branches was here made. The collections from the widely separated localities in the Territory of Santa Cruz were then forwarded to the Port of Deseado and made ready for shipment.

Owing to the approach of the southern winter, it then became necessary to move northward. Snow and difficult roads were encountered on the high pampas of Chubut, but Collectors Sternberg and Abbott reached Buenos Aires in time to make connections for their return to the Museum.

After the arrival of Associate Curator Riggs at Buenos Aires, the formality of inspecting the collections according to Argentine law, was

carried out before a committee of museum directors and curators at the National Museum of Buenos Aires. The entire collection was taken to the museum, unpacked and the greater part of it unwrapped and displayed. Certain specimens were held on the grounds of being new to the local collections; others were detained to be studied and duplicated in plaster, with a promise of being later restored to Field Museum. The entire collection was then repacked in 51 shipping cases and freed for exportation. It was then shipped to the Museum, as were also 6 packing cases containing Indian skeletons and artifacts, skins and skeletons of birds and mammals, bird's eggs, specimens in formalin, pressed plants and photographic negatives, all collected or made by the Expedition.

The third and fourth field problems undertaken by the Expedition were to find profitable collecting grounds in, and to make collections of fossil mammals from, the Pliocene and Pleistocene deposits of Argentina and Bolivia. In pursuit of this purpose and while awaiting inspection of the collections, a trip was made to the city of Parana in company with Sr. Alberto Lelong, and a reconnoissance of some thirty miles along the banks of the Parana River carried on in quest of profitable collecting grounds. Because of rising waters in the river, however, it was found that the locality could not be profitably worked at that time.

In order to carry on the work of collecting, it was then found necessary to move northward to a more favorable climate. Accordingly, the Expedition proceeded to Tarija, Bolivia, which was reached near the end of July. A promising collecting ground was soon discovered, and a party of native laborers under the direction of Sr. Jose Strocchio was employed. Work was continued until the end of November, when the approach of the season of torrential rains made further collecting impracticable, but during the period when work could be done a large and valuable amount of material was secured. This was packed in 34 cases, most of which were too heavy to be transported by pack animals. The rains having made roads impassable for vehicles, transportation of this collection to the railway was deferred until the close of the rainy season.

Preparations for resuming collecting in the vicinity of Bahia Blanca, Argentina, were then made. The equipment was shipped to that point, the motor cars were made ready for service and all was placed in storage to await resumption of the work of the Expedition.

The results attained by the Expedition during the year may be summarized as follows: From the Cretaceous formations, 3 specimens

of dinosaurs; from the Deseado formations, 229 specimens of fossil mammals, 4 of fossil birds, 3 of fossil fish, and 3 of fossil plant impressions; from the Patagonian Beds, 430 specimens of fossil shells, and 246 of fossil pine cones, branches and roots; from the Pliocene formations, 114 specimens of fossil shells, and from the Pleistocene formations, 121 specimens of fossil mammals and one of fossil birds. The majority of all these specimens are entirely new to the Museum collections. Twenty lithological and mineral specimens were collected, as were also 19 archeological specimens, including celts, potsherds and other artifacts, 50 pressed plants, 14 lizards in formalin and 3 skulls of modern mammals. One hundred and eighty photographic negatives and 11 five-meter cinema films were made.

Other results attained consist of field notes, geological sections and maps, and many data bearing on fossil-bearing localities, which will be of value in guiding future work.

ZOOLOGY.—The zoological expedition to Central Africa, which was despatched late in 1923, remained in the field throughout 1924 and, with some changes in the personnel, is continuing into 1925. This expedition, which was organized under the joint auspices of Captain Marshall Field and Major A. M. Collins, was conducted at first by Maj. Collins and Assistant Curator Heller of the Museum staff, with the assistance of Mr. T. A. Barns. On July 10, Mr. Barns severed his connection with the expedition and, about two months later, Maj. Collins started on his return to the United States, leaving Mr. Heller still in the field where he was joined late in the year by his wife, Hilda Hempl Heller, who will assist him in continued work in 1925.

During 1924, the party worked, principally, in the eastern part of Belgian Congo in or near the great rain forest of central Africa. They arrived at the port of Dar es Salaam January 3, and went inland by rail to Kigoma on Lake Tanganika and thence to Usumburu. Here they employed a short time in a trip to the edge of the forest to the north-east and obtained a small number of interesting animals, including several species of monkeys, a white forest hog and a yellow-backed duiker-buck. Thence they went to Lake Kivu and in mountains northeast of Kissenyi obtained their first specimen of the Chimpanzee. From Kissenyi, they organized a safari and traveled westward down into the heart of the Congo forest in quest of great apes, especially Gorillas. Three days' march beyond the village of Walikali and a very long distance from the preserve established by the Belgian government, they found Gorillas and obtained two specimens, this being the limit per-

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1954



QUEEN CRAPEMYRTLE (*Lagerstroemia speciosa*).
A REPRODUCTION OF A FLOWERING AND FRUITING BRANCH
IN THE HALL OF PLANT LIFE.
(STANLEY FIELD LABORATORY).

mited by the Belgian authorities. One of the specimens was a very large old male weighing 350 pounds and having an arm spread of over 90 inches, one of the largest Gorillas ever recorded. In the same region a number of Chimpanzees, various species of smaller monkeys and other rare animals were obtained. Returning from Walikali to the mission of Katana on Lake Kivu, the expedition passed through country inhabited by hostile tribes and suffered the loss of three of its native bearers who were murdered in cold blood.

After some weeks spent in Kissenyi, the party proceeded via Amakona and Beni to Irumu in the district of Ituri. Here Maj. Collins had some successful elephant hunting, and Mr. Heller devoted himself to general collecting until the arrival of Mrs. Heller late in the year. Among interesting specimens obtained in this region were several of the small red forest buffalo. At the end of the year a large consignment of specimens had been despatched to America but at this writing have not reached the Museum.

The Captain Marshall Field Chilean Expedition continued to have one representative, Mr. C. C. Sanborn, in the field until August, 1924. After working in the north under favorable climatic conditions, he returned to south central Chile in order to make trips into the Andes which had previously been impractical on account of heavy snow in the passes. Two and a half months were spent in crossing the Andes via the Longimani Valley and over the border into Argentina. Much valuable material was secured here, and Mr. Sanborn then returned to the northern provinces, visiting Caldera and Gatico on the coast and then going inland to high altitudes east of Antofogasta. Further work was done at Pica in the Province of Tarapaca and at Arica, the northernmost port of Chile. Work was then concluded with several weeks spent in high mountains on the Bolivian border inland from Arica. The total Chilean collections of this expedition, all of which have now been received at the Museum, amount to 1,105 mammals, 1,437 birds, 1,300 reptiles and amphibians and, in addition, various insects, fossils and anthropological material. Since very little well-organized work had been done previously in Chile, this is doubtless the best collection of Chilean vertebrates in existence. It has not yet been carefully studied, but among outstanding novelties four new species of birds and a new genus of mammals have been described in the publications of the Museum.

An expedition of two months duration was made during the summer to the Gulf of Mexico on the coast of southern Texas, the particular object being subtropical fishes, especially sharks and rays, for exhibi-

tion purposes. This was conducted by Assistant Curator Weed and Taxidermist Pray who coöperated in selecting suitable material, in taking color notes, measurements, and miscellaneous data for subsequent use in the preparation of the specimens for exhibition. The larger fishes were mostly cast in plaster from freshly caught examples, thus preserving the most minute details of their form and structure. No less than 121 plaster casts and dried skins of fishes, mostly of large size, were secured. Included were twenty casts of sharks of various sizes and representing at least six species. There were also casts of 10 rays belonging to the species known as Cow-nosed Rays, Leopard Rays and Butterfly Rays. In addition to the fishes, the expedition brought back 20 mammals, 93 birds, 55 reptiles and about 850 insects.

Besides the foregoing regular expeditions under the auspices of Captain Marshall Field, a semi-official zoological expedition of considerable importance was conducted by Mr. H. B. Conover, Associate in Ornithology. In coöperation with Mr. Herbert Brandt of Cleveland, Ohio, and a party from the U. S. Biological Survey, Mr. Conover went to central Alaska and, after a winter trip of 800 miles with dog sleds, reached the Bering Sea coast in the vicinity of Hooper Bay near the delta of the Yukon River. Here the early spring and summer months were spent in collecting specimens of the many rare species of waterfowl which have this remote region as their breeding ground. Certain parts of the collection made have been presented to the Museum, and the remainder, including many rare species and an especially valuable series of nestling and immature-plumaged birds, are deposited in Mr. Conover's collection where they are available for reference by the Museum staff.

The following list indicates the various expeditions in the field during the year, all of which are partly or entirely under the auspices of Captain Marshall Field:

Locality	Collector	Material
MESOPOTAMIA	S. H. Langdon and E. Makay	Archaeological Collections
ARGENTINA	Elmer S. Riggs,	Paleontological Collections
BOLIVIA	J. B. Abbott, and G. F. Sternberg	
CHILE	C. C. Sanborn	Mammals, Birds and Reptiles
CENTRAL AFRICA	A. M. Collins Edmund Heller, and Hilda H. Heller	Mammals
TEXAS	A. C. Weed, and L. L. Pray	Fishes
BRITISH GUIANA	A. C. Persaud	Tropical Woods

INSTALLATION, REARRANGEMENT AND PERMANENT IMPROVEMENT

ANTHROPOLOGY—The activities of the Department of Anthropology were equally divided during the year between the installation of new exhibition material and the arrangement of study, exchange and storage collections on the third and fourth floors and in the storage-room on the ground floor. A total of sixty newly installed cases were placed on exhibition during the year.

Prompted by the desire to render accessible to the public the results of recent expeditions, several notable additions and changes have been made in Stanley Field Hall. At the south end of this hall were placed two standard cases (23 and 24) of brown mahogany. The exhibits illustrate state robes and other court paraphernalia of the extinct Manchu dynasty of China. These articles were secured by the Curator during the Captain Marshall Field Expedition to China in 1923. One of the cases contains an imperial costume of yellow silk tapestry, as worn by the emperors of the Manchu dynasty on ceremonial occasions; a sacrificial robe embroidered on yellow silk and worn by the emperor during worship or at the performance of sacrifices; the state robe of an empress, of yellow silk embroidered with eight five-clawed dragons in gold; and the state robe of a Manchu prince, of blue satin likewise embroidered with dragons. These four costumes come down from the K'ien-lung period (1736-95). In the case on the opposite side are displayed the ceremonial robe of an empress, of midnight-blue silk with buttons carved from amber, the dress of a lady of the Manchu aristocracy, head-dresses of Manchu princesses formed by a combination of jade, coral, rose-quartz, pearls, and blue kingfisher feathers inlaid in silver, the velvet hat of an empress, satin hats and caps of princes, a yellow silk belt with white jade carving worn by the emperor, and five silk belts of different colors with jade buckles worn by the princes, as well as fans used by palace ladies on ceremonial occasions. One of these is a marvel of technical skill, being plaited from ivory threads held by a tortoise-shell rim and overlaid with colored ivory carvings of lilies, peonies, asters, and butterfly. Another court fan is of red silk tapestry in which fungus and orchids are woven in colors; it has an ivory handle on which the eight figures of the Immortals are engraved. String bags from New Guinea were removed from Case 16 of Stanley Field Hall and replaced with fabrics and examples of metal ware selected from the collections of the Arthur B. Jones Expedition to Malaysia, 1923. A royal sarong of red silk brocade with geometric design in gold threads, worn by the late Sultan

Idris of Perak on the occasion of his last marriage (illustrated in last year's Report), and a bridal mat embroidered with floral designs in gold threads, on which the bride and groom sit in state during the wedding ceremony to receive the congratulations of their friends, testify to the accomplishments and skill of the Malayan artisans. No less interesting is the process of inlaid silver wire in the belt buckles as well as the fine filigree work in the women's ear-studs and breast-ornaments. Jewelry, silver pillow-ends with gold mountings, a fine kris, and a betel-nut set are also shown in this case. Case 20 in Stanley Field Hall was stripped of American basketry and utilized for the display of a selection of antiquities secured by the Field Museum-Oxford University Joint Expedition, representing the first results of the excavations carried on on the site of Kish, the oldest capital of Mesopotamia. The principal exhibits in this case are a series of fine necklaces consisting of lapis-lazuli, rock-crystal, agate, and carnelian beads, jewelry in the shape of copper, silver and shell rings as well as silver bosses, stone and bone implements, flint saws, copper and iron weapons and tools, copper and silver dishes, cylinder seals of shell, hematite, and calcite engraved with interesting designs, clay figures and plaques, a large inscribed brick recording the restoration of the temple of Ilbaba, god of Kish, of the eleventh century B.C., inscribed clay cones and tablets, the reproduction of the only stylus for writing ever discovered, a series of pottery vessels glazed and unglazed, and pottery sherds with stamped and incised designs.

A Persian embroidered tent made for the Sultan Aga Mohammed Shah (1785-97) was loaned by H. H. Topakyan, Vizir of Persia, and temporarily exhibited in Stanley Field Hall.

A feat of technical engineering is represented by the reconstruction of the two Mastaba tombs from Egypt in Hall J, which were completed and opened to the public in October. They were excavated at Sakkara, the necropolis of ancient Memphis. One, the tomb of Unis-ankh, of the sixth dynasty (2600 B.C.), was presented by Mr. Martin A. Ryerson. The other, the tomb of User-neter, of the fifth dynasty (about 2700 B.C.), is a Museum purchase. The blocks of these two tombs reached Chicago in May, 1909, in 206 large cases weighing 96 tons. The work of building up the tombs was placed in charge of the Superintendent of Maintenance, who acquitted himself of this difficult task with great ingenuity, after patient and careful study of the technical problems involved. The more prominent features of the work may briefly be placed on record, in the hope that the information may prove useful to other institutions confronted with a similar task.

The lower courses of the stone slabs, to an average height of one meter, were not shipped to Chicago, as they were devoid of carvings, and were replaced with pre-cast cement blocks and channel steel framework. Wherever stones were missing in the upper courses, these were also replaced with pre-cast cement blocks. In order to prevent moisture coming into contact with the original stones, the replacements were dried and seasoned before the walls were laid up. In lieu of mortar the stones were bedded in lead strips a quarter inch thick, each stone being connected with the adjoining stone by dowels both on the horizontal and vertical joints and with additional metal clamps on the upper side of each course. As it is desirable to have the backs of the stones visible and accessible, each block is secured to a bracketed upright steel channel. As there is little uniformity in the sizes of the blocks or regularity in the courses, each stone is bracketed and anchored with especially devised connections. This was a difficult task, for it was essential to avoid cutting away the backs of the stones or changing in any way their appearance. The illumination of the interior was effected by raising the ceiling 18 inches above the walls and placing the lights in a trough back from the face of the wall, so that they are not visible from the ground. Large view glasses are provided in such a way that visitors can walk into one chamber of each tomb. For a more intimate observation on the part of students, doors are provided so that it is possible to walk through the chambers. In the rear, the two tombs are sealed with a wall set 18 inches away from the stones and providing a passage-way completely around both tombs and furnishing access to the backs of the stones. The room back of the tombs is mechanically ventilated, and the arrangement of the lighting overcomes any possible tendency to humidity on either side of the stones.

The following data may also be of interest. The height of both tombs to the top of the walls averages 11 feet. The main chamber in the tomb of User-netjer is 12 feet long and 5 feet, 9 inches wide; the ante-chamber is 12 feet in length by 5 feet in width. The main chamber in the tomb of Unis-ankh is 17 feet long and 6 feet wide, while the ante-chamber is 8 feet, 8 inches by 5 feet. The stele in the same tomb is a monolith and weighs a little less than 7 tons. The stele in the tomb of User-netjer is in seven pieces and weighs about $4\frac{1}{2}$ tons.

Fifty of the miscellaneous Egyptian tomb-sculptures from Gizeh and Memphis, extending from the late third to the twentieth dynasty, were framed under glass and placed on the pilasters of the Egyptian Hall (J). Most of the sculptures have been provided with labels re-

vised in the light of recent research. A reproduction of the famous Rosetta stone was likewise added to the exhibits.

Six cases were installed in Ayer Hall by Assistant Curator Owen: one of Etruscan wine-jars, one of Etruscan bronzes, two cases of Etruscan cinerary urns; one case of vases from southern Italy, and one of Greek bronzes. Re-installations were made in several other exhibition cases, and a general rearrangement of the cases in the Hall was made.

Repeated additions made by Mr. Edward E. Ayer to his collection of pewter housed in Hall 23 at the north end of the second floor entailed a complete re-installation of the Ayer Pewter Collection last June. It is now arranged in eleven cases as follows: Cases 1-2 contain trays, communion and other plates from England, Germany, Holland, Austria, and Bohemia. In Cases 3-4 are exhibited lamps, candlesticks, flagons, flasks, tea-pots, milk-containers, plates, tureens, mugs, tankards, and guild-cups of Germany. In Case 5 are displayed examples of candlesticks, lamps, jugs, flasks, ewers, tea-pots, milk-pitchers, dishes, cups, and plates of England and France. Case 6 is devoted to tea-pots, trays, boxes from China, with a few tea-pots from Japan. It comprises a remarkable series of tea-pots of all imaginable forms with handle, spout and cover-knob of jade; those with body mounted on carved coconut-shell and fine bamboo plaiting are also rare pieces. Case 7 contains Chinese chafing-dishes, fruit-dishes, finger-bowls, wine-cups, and a set of 62 objects constituting the dowry of a well-to-do Peking bride. Case 8 illustrates Chinese devices of illumination in the shape of four candelabra, an excellent series of figures representing the Eight Immortals combined with candlesticks, three different forms of the Twin Genii of Harmony and Union treated in the same manner, and other candlesticks with representations of dragons, stags, cranes, and lions. Case 9 is likewise given over to China with a notable sacrificial lamp inlaid with designs and figures in brass, of the Ming period (about sixteenth century), two figures of a water-buffalo with a boy playing a flute astride, several other cast figures, tall ewers and tea-pots, and three sets of altar-pieces used in ancestral worship. Case 10 contains a baptismal basin made in Germany in 1717 and decorated with an etched design of John the Baptist baptizing Christ in the Jordan. In Case 11 are on view exceptionally fine tea-canisters from Japan (eighteenth century), two from China of the K'ang-hi period (1662-1722), and the Han dynasty pewter tablet described on p. 289. The installation is now complete, save 18 pieces acquired during the last few months.

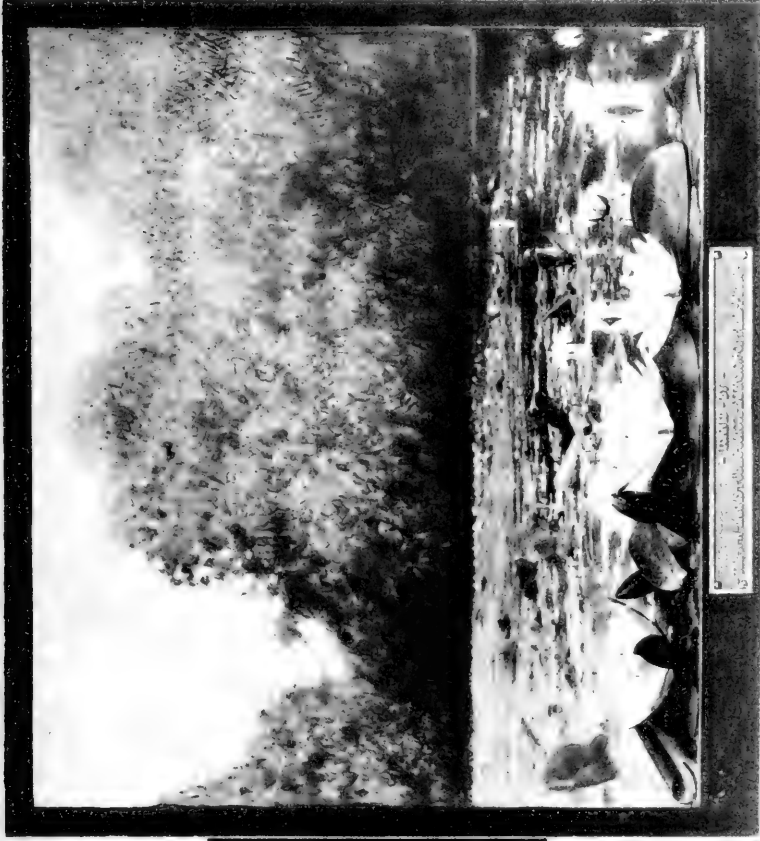
Five cases of new exhibits were added to the Hall of Oriental Theatricals (Cases 29-33, Hall I, ground floor). They contain the actors' costumes obtained last year by the Curator in Peking. At that time Peking actors and actresses posed for him in these costumes before the camera, a characteristic scene or posture being selected for each, as prompted by the play in question. On the basis of the photographs thus secured Chinese students at the University of Chicago were picked and, as far as possible, matched for the characters they were to impersonate. Casts of their faces and hands were taken by the modeler in the department's modeling section. From these casts the heads, faces, and hands were modelled, and special attention was devoted to a life-like reproduction of the skin color. The figures were posed exactly as shown in the photographs, resulting in an accurate representation of the original stage-picture. In the previous theatrical exhibits it was mainly the religious and mythological drama of the Chinese that was emphasized. With the new additions all the principal varieties of stage-plays are shown: civilian, military or historical, and dance performances. The new exhibits are also instructive in presenting a contribution to the history of costume and permitting one to study the styles of the T'ang and Ming dynasties. Thus Yang Kwei-fei (Case 33, Hall I), a celebrated court-lady of the eighth century appears in a dress peculiar to the T'ang dynasty; and T'siu Hu, the hero of the play, "The Meeting in the Mulberry-Garden," is garbed in the characteristic apparel of the old-time scholar and official, which prevailed under the Ming. Of the numerous historical plays, the story of the Three Kingdoms is still the most popular, and in view of the fact that the best there is in Chinese character is typified in the great figures of the national heroes who form the backbone of that historical romance, it seemed appropriate to include them in this series of favorite casts. The three brothers-in-arms, Kwan Yü, Liu Pei, and Chang Fei, who were bound by a solemn compact to fight and die together, are grouped in Case 29, while in the adjoining Case 30 appear the powerful hero Chu-ko Liang and the knight-errant Chao Yün. In the same case is placed on exhibit the figure of a militant heroine in martial dress, carrying four flags on her back as a symbol of military rank. Large pheasant feathers adorn her head-dress. In striking contrast with these exponents of warlike activity stands on the opposite side the mild goddess Ma Ku, engaged in the performance of a sacred dance which will initiate her into the mysteries of immortal life among the gods of the Taoist paradise. The flowers (made of silk) which she carries in a basket over her shoulder are emblematic of the blessings she has in store for mankind.

Three cases were added to the Chinese collections in Hall 24 (east gallery), one of feather and gauze fans, one of writing-materials, and one illustrating the use of tobacco and smoking utensils. The exhibit of writing-materials includes all the manifold varieties of brushes for writing, drawing, and painting, artist's pigments, ink-cakes (ancient and modern) adorned with fine engravings, palettes, ink-stones and all implements used on the desk with specimens of letter-paper and envelopes. The imperial letter-paper used by the emperors of the Manchu dynasty is a special feature of the exhibit. The contents of the case illustrating the use of tobacco in China is fully explained in Leaflet 18: it contains good series of long-stemmed pipes for dry tobacco, water-pipes of all descriptions from Shanghai, Suchow, Hangchow, and Canton, opium-pipe and opium-smoker's outfit, a fine series of old snuff-bottles, and samples of tobacco-leaves and snuffs.

Three cases were installed with Chinese baskets and lacquer ware, and another with ivory carvings. These will be placed on exhibition shortly. The fact that China has also produced artistic basketry and that old baskets going back to the eighteenth century are still obtainable, was hitherto unknown. The exhibits include baskets of high quality from almost every locality of central and southern China where this industry still flourishes. Among the lacquers will be found many rare and fine examples of early carved lacquer of the Ming period as well as lacquers painted with landscapes or inlaid in mother-of-pearl of the K'ang-hi and K'ien-lung periods.

The two dressed figures of Japanese women presented by Mrs. Koshichi Tsukamoto are exhibited in Frank W. Gunsaulus Hall (Case 10). The remarkable Japanese suit of armor presented by Miss Adele Barrett, on account of its dimensions, could not be accommodated in a standard case, but it is accessible to students interested in the subject. The exhibitions of Surimono were changed four times during the year according to plan.

Thirty-one cases were installed during the year by Assistant Curator Linton. Eleven of these, illustrating the ethnology of the Northwest Coast and Plateau tribes, have been placed on exhibition in Halls 3 and 4. Of the remaining twenty cases, fourteen represent the ethnology of Polynesia and six that of Micronesia. They have been placed in Hall F on the ground floor, which it is planned will be opened during the coming year as a Hall of Polynesian and Micronesian Ethnology. Most of this material will be exhibited for the first time. It is proposed that the western end of the new hall will be occupied by a remarkable Maori council-house, the only one of its kind in America.



SWEET-SCENTED WATER-LILY.
 This is the most common water-lily in the Chicago region. It is a native plant, and is found in all parts of the State. It is a very hardy plant, and is able to withstand the winter weather. It is a very beautiful plant, and is a great ornament to any pond or stream. It is a very useful plant, and is used for many purposes. It is a very common plant, and is found in all parts of the State. It is a very hardy plant, and is able to withstand the winter weather. It is a very beautiful plant, and is a great ornament to any pond or stream. It is a very useful plant, and is used for many purposes.

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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.

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It is a large, finely carved structure fourteen feet high and nearly sixty feet in length. This part of the hall will also contain a number of cases picturing the life and culture of the Maori of New Zealand. The southeastern quarter of the hall will be devoted to other parts of Polynesia and to Fiji. The northeastern quarter is to contain exhibits from the various Micronesian groups and from certain small islands on the eastern edge of Melanesia which are essentially Micronesian in culture.

Two cases were installed by Assistant Curator Lewis, and have been added to Joseph N. Field Hall: one illustrates the ethnology of the Admiralty Islands, the other shows clothing and ornaments from Huon Gulf, New Guinea.

A series of colored photographs made and loaned by Mr. L. Winternitz was temporarily exhibited this summer until August 8. They illustrated scenery, plant-life, and types of the Seminole Indians of Florida.

A poisoning and storage room for the preservation of perishable material was constructed of compressed steel at the south end of the fourth floor, and in its essential features was completed toward the end of 1923. In the beginning of 1924 it was equipped with storage bins, cedar wood being the only lumber employed. The distribution of the five rooms from east to west is as follows: Room 1 serves for the laying-out and cleaning of specimens. Room 2 contains fabrics, costumes, and other perishable material from India, Tibet, China, and Korea. Room 3 is set aside for material from California, Southwest, Mexico, and South America. Room 4 shelters material from the Plains Indians and Northwest Coast, and Room 5 collections from the South Sea Islands. Formaldehyde candles have been used for purposes of poisoning with good success, and the entire arrangement and equipment of the poisoning room may be characterized as eminently satisfactory. It insures with absolute safety the permanent preservation of destructible material.

Storage racks were constructed during the year for Rooms 28, 30, 34, and 36 on the third floor. The distribution of study collections is now as follows: Room 28 serves for the accommodation of material suitable for exchange, so that those interested in examining what the department has to offer in the line of duplicate specimens may have ready access to them. Polynesian and Micronesian collections not required for exhibition are stored in Room 30, which also contains overflow material from Africa and Australia. Room 31 harbors collections from India. In Rooms 33 and 34 are stored collections from

the Northwest Coast. The Philippine collections in Room 36 were entirely rearranged by Assistant Curator Linton. Material from Sumatra, Borneo and Java formerly in Room 34 was transferred to Room 36, where now all Malayan collections are grouped together. Rooms 65 and 66 contain collections from China, Tibet, and Korea. All this material is properly grouped and classified, and is arranged in such a way that it can easily be located and taken out upon demand. A large room on the ground floor has been assigned to the department for storage purposes. It will ultimately absorb all American archaeological material, as far as not required for exhibition. In view of the fact that a hall of North American archaeology is planned on the ground floor, it is thought that in this manner the entire archaeological collections of this continent will be kept conveniently together.

A special label-card has been devised for the identification of study and storage collections. Each card indicates country, stock and tribe with a brief enumeration of the material in question, the room where it is located with the number of rack or shelf being given in the upper left corner. The size and form of the catalogue-cards (about 3 x 6 inches) has been chosen for these labels, and several copies of each card are printed. One is attached to the shelf in the storage-rooms, the others are kept on file in the Curator's office, and when completed will serve as an index and finding list of the study-collections. This card-index will be arranged in triple form, according to localities, tribes, and material, and will be of assistance in locating any collection on which a demand may be made for study. The work performed on the storage of collections made heavy demands on the time of the staff and the preparators, as numerous exhibition-cases in which they were piled up heretofore had to be opened and emptied, and all material cleaned, sorted, and identified. The storage of Northwest Coast and American archaeological collections was begun, but not completed.

In the Modeling Section the large house and two coconut palms for the model of the New Guinea village were completed. Ten casts of faces and as many pairs of hands were taken by the modeler from Chinese students, modeled and colored for the costumed actors' figures from Peking, and now on exhibition in Hall I. The presence of a Sioux Indian in the city afforded an opportunity of having casts taken of his face and hands. There were 174 specimens repaired. Material in fifty exhibition-cases was poisoned during the year. Twenty papier-maché forms for the exhibition of costumes were made and 12,528 numbers were marked on specimens.

BOTANY.—In the Department of Botany all of the exhibition cases were refinished during the year in a dark walnut color, greatly improving the appearance of the halls. New installations and reinstallations were confined to the Hall of Plant Life, where the backgrounds are being changed as fast as possible from black to a light color. Reinstallations are being made by the removal from this hall of a large part of the strictly economic material to provide space for the reproductions of plants and other exhibits of more distinctly botanical significance. Many additions were made to the latter exhibits during the year. Of native plants there were added reproductions of Blue Phlox, Trillium and the Shooting Star. For the remainder, the various new exhibits grew mostly out of the collections of the Stanley Field Guiana Expedition of 1922. Among these, the Cannon-Ball Tree was completed early enough in the year to be illustrated in the last annual report. The other most important additions are a large specimen of a Banyan-like fig tree, *Ficus Benjamina*, and a group of *Victoria regia*. The former, although an Indian species, is more or less widely grown in warm countries and is plentifully represented in the Georgetown Botanic Gardens, where a trunk was secured through the kindness of the Superintendent and of the Director of Agriculture of British Guiana. This trunk in its fresh condition weighed approximately a ton, but is now dry and light enough to be moved easily by two men. Like the banyan and other figs on the rubber-plant order, it is remarkable for its masses of pendent aërial roots. With leaves and fruits replaced, it should prove to be an object of great interest in the hall.

The *Victoria regia* group also furnishes a new exhibit of a striking character. This famous South American Water-lily forms one of the chief attractions of the Georgetown Botanic Gardens, where abundant opportunities are afforded for its study. A mould of one of the huge leaves in a canal was made by covering the floating leaf with thin coatings of plaster until it was sufficiently reinforced to allow the entire leaf to be lifted from the water without deformation, after which the mould was completed on land. It was broken into four pieces for convenience of packing and transportation. Reassembled two years later in the Museum, it has served for the production of the large leaves in the group. Moulds of the flowers were also made where they grew. The final work on this group has just been completed. With its large leaves, spiny buds and large showy flowers in the various stages of expansion characteristic of them on successive days, this gigantic aquatic makes a conspicuous addition to the collection of plant forms represented in the hall.

A reproduction of a flowering branch of a *Barringtonia*, an East Indian tree, also from the Georgetown Botanic Gardens, has been made and installed with the other exhibits of the Monkey-pot family.

To represent the flowering structure and other botanical features of the Lace-bark Family, a flowering branch of the splendid *Lagerstroemia flos regina* "the queen of flowers," has been reproduced. This also was prepared from material secured by the Stanley Field Guiana Expedition.

The Cactus exhibit has been increased by the addition of a flowering and fruiting branch of a *Pereskia* the Barbados Gooseberry, a leafy representative of the Cactus Family, particularly curious on account of its leafy fruits.

A flowering and fruiting branch of the Cashew, *Anacardium*, adds another type of edible fruit to the collection in the Sumach Family which includes such diverse plants as poison-ivy and mangoes. The Cashew is often described as a fruit with its seed hanging on the outside, its fleshy portion being formed by the enlargement of the flower-stem and not extending to envelop the seed, the well-known Cashew nut.

The exhibit of Spurges, already illustrated by a Castor Bean plant, has received an addition in a flowering branch of a cactus-like Euphorbia, the so-called Sweet Aloe.

A flowering branch of an African *Combretum* with its red flower cluster faithfully reproduced in glass, together with a single enlarged flower, has been added to the exhibit of the *Combretum* Family and serves to illustrate its floral characters.

The room vacated by the transfer of the departmental library has been made the Cryptogamic Herbarium and the collections of lower plants have all been put in order and installed there. One of the most notable single accessions among these is the E. T. & S. A. Harper Collection of Fungi, which is now completely labeled, ordered into genera and catalogued. This work on the Harper Collection was done by Miss Grace McCrone who was attached to the staff for several years for this special purpose. The collection comprises about 23,500 specimens, and 5,500 photographs, among them many stereoscopic, some of which are direct enlargements, the whole now for the first time entirely available for reference. The collection includes 10,248 numbers, particularly of fleshy fungi collected by E. T. Harper and, in addition, many standard series, e. g. Fungi Columbiana 5,324 numbers; Rabenhorst-Winter Fungi Europaei 1,849; Otto Jaap, 1,254; Phycotheca Boreali-Americana 2,713; Ellis & Everhart 420; C. L. Shear N. Y. Fungi 302; Torrend 302; Central American Fungi by C. L. Smith 224; E. Ule Mycotheca brasiliensis 143.

In response to the general interest in the native wild flowers an experiment was made early in the spring with an exhibit of living plants. These were planted in a case built on the order of a large-scale flower-box, installed in the Stanley Field Hall. The plan proved to be practicable and was successful from the beginning. The plants survived transplanting and most of them appeared to thrive fairly well under the overhead light in the large central hall. A few, however, such as the Spring Beauty, refused to open their flowers in the absence of direct sunlight.

With the advance of the season, the case constructed was found to be inadequate for the display of the increasing number of plants coming into bloom. A larger case four times the size of the first one was therefore built, which was large enough to permit of an approximate ecological arrangement of the plants. One corner of the case, with a somewhat elevated sandy ground, was made to serve for the sand-dune plants, an adjoining quarter, with better soil, was assigned to plants of dry woods, a lower quarter, surrounding a pool, served to accommodate moisture-loving vegetation, and the pool itself being devoted to aquatics. One end of the box, with heavier soil, provided suitable space for prairie plants.

By bringing in fresh plants several times each week this indoor exhibit was maintained constantly in fresh condition, and kept pace with the progress of vegetation in the country surrounding Chicago. About five hundred species were shown during the season. No labels in the Museum were more thoroughly inspected than those giving the names of the plants in the Wild Flower bed.

In connection with the Wild Flower exhibit, a series of illustrated leaflets were prepared, dealing in a non-technical manner with the common plants of this region. Four of these have appeared to date, Spring Wild Flowers, Spring and Early Summer Wild Flowers, Summer Wild Flowers, and Autumn Wild Flowers and Fruits.

The study of the Peruvian Collections, secured on the Captain Marshall Field Botanical Expeditions of 1922 and 1923, has been carried on with the generous coöperation of specialists on various plant families or groups. The results of this work are appearing in botanical magazines and institutional publications, and will be brought together under one cover upon the completion of the Peruvian exploration work by this Museum. Although only about one-half of the collections have been studied, a large number of undescribed species have been disclosed, some specialists reporting forty per cent of the material examined by them as representing undescribed plants. The type, that is, the original specimen of each of the novelties, has been placed in the Museum herbarium, the specialist naming the species retaining for his institution the dupli-

cate material when such exists. As a consequence, the herbarium of Peruvian plants is unusually rich in type specimens, making it one of the most valuable of its kind in the world. It is equalled only by the Peruvian collections at Berlin, which include those made by Dr. A. Weberbauer, the distinguished German phytogeographer. Eight hundred and thirty-nine duplicate specimens of Dr. Weberbauer's collections have recently been acquired.

The large number of new species reported by specialists is an indication of the richness of the Peruvian flora and the great opportunity it presents for further exploration and botanical research. Evidently little relatively is as yet known regarding the herbs and trees of Peru. The present collections from there have been organized to the extent of placing them in families (and to some extent assigning them to genera), and were thus made available for study by the following specialists on particular groups:

O. Ames, Ames Botanical Laboratory, *Orchidaceae*; S. F. Blake, U. S. Bureau of Plant Industry, *Compositae* (exclusive of groups listed elsewhere) *Polygalaceae*; G. S. Bryan, University of Wisconsin, and A. W. Evans, Yale University, *Liverworts*; Carl Epling, University of California, Southern Branch, *Labiatae*; H. A. Gleason, N. Y. Botanical Garden, *Lobeliaceae*, *Vernoniaceae*; J. M. Greenman, Missouri Botanical Garden, *Senecio*; A. S. Hitchcock, U. S. Dept. of Agriculture, *Gramineae*; M. A. Howe, N. Y. Botanical Garden, *Marine Algae*; I. M. Johnston, Gray Herbarium of Harvard University, *Boraginaceae* (excluding *Cordia* and *Tournefortia*), *Violaceae*, *Onagraceae*, *Euphorbiaceae*, *Araliaceae*, *Caricaceae*, *Hydrophylyaceae*, *Polemoniaceae*, *Malvaceae*; E. P. Killip, U. S. National Museum, *Bomarea*, *Cordia*, *Tournefortia*, *Escalloniaceae*, *Passifloraceae*, *Urticaceae*, *Valerianaceae*; K. K. Mackenzie, Maplewood, N. J., *Cyperaceae*; W. R. Maxon, U. S. National Museum, *Filices*; G. K. Merrill, Rockland, Me., *Lichens*; E. B. Payson, University of Wyoming, *Cruciferae*, *Ranunculaceae*; F. W. Pennell, Academy of Natural Sciences, Philadelphia, *Scrophulariaceae*; C. V. Piper, U. S. Dept. of Agriculture, *Phaseolus*, *Canavalia*; B. L. Robinson, Gray Herbarium of Harvard University, *Eupatorieae*; J. N. Rose, U. S. National Museum, *Cassia*, *Crotalaria*, *Lupinus*, *Cactaceae*, *Crassulaceae*, *Umbelliferae*; J. H. Schaffner, Ohio State University, *Equisetaceae*; E. E. Sherff, University of Chicago, *Bidens*, *Taraxacum*; P. C. Standley, U. S. National Museum, *Amaranthaceae*, *Chenopodiaceae*, *Nyctaginaceae*, *Rubiaceae*; W. Trelease, University of Illinois, *Piperaceae*; R. S. Williams, N. Y. Botanical Garden, *Musci*; T. G. Yuncker, DePauw University, *Cuscuta*.

Some of the material not represented in the above list is being studied in the Museum.

The Museum has been unable to contribute very materially to the study of these collections, as the large amount of routine and other work devolving on the small scientific staff in the department of Botany leaves little time for research.

GEOLOGY.—The contents of the case of fossils in Stanley Field Hall were changed in part, the mounted skeleton of *Dinictis* being replaced by a series of models illustrating the evolution of the horse. Supplementing this series, skulls and feet of early horses were installed. A restoration of a fossil cycad flower prepared in the Stanley Field Plant Reproduction Laboratory, together with specimens of fossil cycad leaves, was also placed in this case.

In the collection of systematic minerals in Hall 34, the installation of the specimens previously exhibited on shelves in four large cases was changed by placing them on sloping screens to which individual blocks were fastened. By this means the specimens are brought nearer to the eye of the observer and individual mounts are provided. The specimens of phosphates, arsenates, sulphates, hydrocarbons and pseudomorphs, were mounted in this manner. After renovation of the interior, the contents of one case of the Chalmers crystal collection were rearranged, and additional labels provided so that they can be read from either side of the case. The case of amber was also cleaned, its contents rearranged and a collection of jet added. The exhibit of imitation gems, numbering 208 specimens, was reinstalled in trays newly lined with silk and new labels were provided. Rearrangements were also made of the contents of three cases of concretions and septaria in this hall, and a number of new specimens were added. A special installation was made of a specimen of quartz crystal containing water. This was installed in such a manner that by turning a button, movement of the water can be seen.

The case containing the large fulgurite was moved from the west end of Hall 35 to a position adjoining the other fulgurites. One of the latter was mounted in a matrix of sand in order to aid in the interpretation of these bodies. The stalactites in the case of cave material were suspended from the top of the case in order that their natural positions might be represented. Several specimens were added to this series.

The arrangement of the specimens of the systematic rock collection was improved by changing the position of three of the cases and re-installing one case.

The large model of the Moon which was presented to the Museum in 1898, by the late Lewis Reese of Chicago, was installed at the west end of Hall 35. This model is without doubt the largest and most elaborate representation of the moon ever made and affords an unparalleled opportunity for the study of the surface features of our satellite. Although the model was constructed a number of years ago, the details of the moon's surface large enough to be shown on it were at that time so fully known that later studies have not added materially to them. The model was constructed by Th. Dickert of Bonn under the immediate direction of Dr. J. F. Julius Schmidt, Director of the Observatory of Athens, Greece, and one of the most eminent of selenographers. The accuracy and completeness of the model can therefore be fully relied upon. The model is 19.2 feet in diameter and has a horizontal scale of 1:600,000 and a vertical scale of 1:200,000. For its present installation it was carefully reassembled and its surface fully restored and refinished.

The model of a cement plant which has been in preparation for some time was completed and placed on exhibition in Hall 36. This model, 11½ by 3½ feet in dimension, is a reproduction of the plant of the Marquette Cement Company at Oglesby, Illinois, and illustrates all stages of the manufacture of portland cement from the mining of the raw materials to the finished product. Crushers, kilns and other machinery, storage houses, methods of transportation and details of mining limestone and clay for the cement are shown in full detail. The model has been mounted in a case of the standard Museum pattern, six feet high, and placed adjoining the general cement exhibit. The model was constructed in the Museum laboratories by Associate Curator Nichols and Valerie Legault. To officials of the Marquette Cement Company the Museum is under obligation for information freely given and many courtesies extended during the construction of the model.

The installation of the exhibit of candles in this hall in one of the cases devoted to petroleum products was enlarged and modified to add the candles presented during the year by the Standard Oil Company (Indiana). Scenic backgrounds were provided in Skiff Hall for the series of three models illustrating the development of iron furnaces. These backgrounds were designed to show typical surroundings of successive types of iron furnaces and thus aid in visualizing the development of these furnaces. By the use of blocks giving more elevation to individual specimens, an improved installation was obtained for a large number of specimens in this hall. Exhibits to which this revision has been applied include those of asbestos, mica, phosphates, lime, gypsum, borax, abrasives, salt, and part of the iron ores, comprising in all about 600 specimens.

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MODEL OF THE MOON.

The positions of several cases in this Hall were changed in order to give a better distribution of certain exhibits, but the contents of the cases were not materially changed. The series of twenty-one specimens of Indiana limestone, presented by the Indiana Limestone Quarrymen's Association, was installed in one of the cases containing building stones. Space was obtained by withdrawing specimens which were of lesser importance or out of date. A number of specimens of Canadian gold ores were added to the exhibit of these ores in the hall and the accompanying series rearranged.

In order to replace the temporary base formerly used, a new and permanent base was constructed and placed in position for the restoration of the Moa on exhibition in Hall 38. The contents of two large cases of invertebrate fossils were transferred to other cases in order to make room for selected series of the Borden collection, and one of these cases was filled with the Borden fossils. The case containing the collection of Paleozoic sponges, presented by Mr. William J. Chalmers and the late Byron L. Smith, was moved to the end of the hall, and an unoccupied case was then partly filled with fossils of the Borden collection. In order to improve their installation sloping screens with individual blocks were provided for a large number of Tertiary invertebrate fossils. Specimens of vertebrate fossils collected by the Capt. Marshall Field Expedition to Patagonia were installed in this hall during the year as fast as they were prepared for exhibition. The specimens so installed included a series of four skulls of *Nesodon*, an animal resembling the rhinoceros in size. Two of the skulls were complete, the others are exhibited with the matrix only partially removed, in order to show the mode of occurrence of these fossils. A complete skeleton of *Interatherium*, a small toxodont, a skull of a carnivore, *Borhyaenodon*, and of a sloth, *Haplolops*, and a carapace with partial skeleton of an extinct armadillo, *Proeutatus*, were other fossils from the Patagonian Expedition which were prepared and placed on exhibition in this hall. A skull and fore and hind limbs of the fossil horse, *Equus scotti*, from Texas, and specimens of *Toxodon* and *Megatherium*, collected by the Curator in Brazil, were also added to the series on exhibition.

A number of the gem specimens collected by the Curator in Brazil were installed in Higinbotham Hall. These additions included five specimens of crystallized emerald, a number of cut and uncut Brazilian diamonds, a cut blue aquamarine weighing $189\frac{3}{4}$ carats, several specimens of cut and uncut topaz, including one large crystal of gem quality weighing $89\frac{3}{4}$ pounds, a carved specimen of amethyst and some uncut specimens of the same mineral, several varieties of cut tourmaline mounted in a bracelet, and a large, cut rubellite or red tourmaline. The

large, cut Persian turquoise, presented by H. H. Topakyan, was also installed in the hall.

The Departmental library has been installed in three rooms adjacent to the Curator's office. Substantial and well-finished stacks, fully supplied with shelving, have been built in these rooms, the style, design and finish of the stacks conforming to the space and lighting of the rooms. In these stacks the Departmental library, numbering about 10,000 volumes, has been installed.

Groupings of the volumes have been made to facilitate reference. In Room 124 have been placed bound serials and works on gems, meteorites, etc.; in Room 121, publications of the United States Geological Survey and other United States government publications, and in Room 119, publications of state and foreign geological surveys. One thousand, three hundred and eighty-eight feet of shelving in all were provided and two of the rooms were furnished with tables and chairs. In addition, a room adjoining the library was fitted with shelving and other facilities for Departmental cataloguing, 102 feet of shelving having been provided for this purpose.

Considerable progress was made in furnishing adequate installation for the study collections. Of the two large rooms and one small one on the third floor set aside for these collections, one is devoted to the study collection of fossil vertebrates, another to a part of the invertebrate fossils, and the other to the remaining collections. In these rooms fourteen substantial stacks containing 2,074 trays were installed during the year. The stacks are arranged facing aisles leading to windows, thus affording good light. The stacks are 7 feet high and either 15 or 18 feet long. The trays are of wood and of the uniform lateral dimensions of 18 by 27 inches, but have a variation in depth of 3, 6½ and 10 inches. The study collections illustrating systematic minerals, lithology, physical geology and economic geology have all been placed in these trays. For the most part the specimens are placed in smaller individual trays and labelled. The work of installation also included unpacking, cleaning and checking the record of each specimen as placed. The arrangement and distribution of these collections not only insures better preservation of the specimens and facilitates their study, but also enables more rapid and adequate selections to be made when specimens are desired for exhibition. Eight, well-finished oak tables 3 by 9 feet each have been provided in these rooms in order to facilitate the sorting and handling of the study collections, and in two of the rooms, sinks with drain boards and running water have been installed.

After the return of Preparators Sternberg and Abbott from the field, preparation of the vertebrate fossils collected by the Captain Marshall Field Expedition in Patagonia was actively carried on by them in the paleontological laboratory. An electrically operated lathe with chucks, motor and flexible shaft was added to the equipment of this laboratory.

ZOOLOGY.—In the Department of Zoology a case of North American Bears, prepared in 1923, including the Black, the Cinnamon and the Glacier Bear, was installed early in January in the systematic exhibit of mammals. This is the first of a new style of installation which it is proposed to introduce into this exhibit and to be developed gradually until the entire hall is reorganized. Although several species are included in a single case, those which are related are grouped together, and all are placed on a continuous natural groundwork instead of on separate wooden bases. Vegetation is introduced in a limited amount, and the realism of the groundwork is carried only to the point of the reproduction of general types of natural land formations. The feature of the installation is not only in the appearance of life given to the animals when placed on natural rough surfaces instead of smooth polished ones, but in the opportunity it gives for attractive groupings and for varied poses and attitudes of individual animals. A second case (see Pl. LII) of this series was installed late in the year, containing six species of North American cats, Jaguar, Cougar, Lynx, Bobcat, Ocelot and Yaguarundi. A small case containing a temporary installation of an American Red Fox was removed from Stanley Field Hall and in its place was substituted a Chilean Pudu, one of the very tiny deer recently obtained by the Captain Marshall Field Chilean expedition. Owing to lack of cases and pending rearrangement of space, no further installations of mammals were made, but a considerable number of specimens were mounted for use in the near future. Among these are White Mountain Sheep, Chilean Huemul, Brazilian Maned Wolf, Ouakari Monkey, Chinchilla, Peruvian Tayra, Argentine Viscacha, American Badger, and a series of small mammals from the vicinity of Chicago.

A case of American birds of prey, including the better known hawks and owls, was installed for temporary display in Stanley Field Hall. In this hall, late in the year, a group of the extinct Passenger Pigeon was placed on exhibition. Eight birds and a nest and egg are shown in the upper branches of an oak stub, representing a scene in northern Illinois. The birds are the finest of a considerable series which has been accumulated over a period of years and presented to the Museum by President Stanley Field. Some of the specimens had been preserved for more than fifty years and their preparation in life-like positions was a matter

of patient and skillful manipulation which was carried out very successfully by Taxidermist Hine. A feature of the group is the nest, which is a genuine one presented by R. M. Barnes, and one of the very few Passenger Pigeon's nests which are known to be preserved. Many other birds were mounted during the year to meet needs which will arise in the proposed revision of the systematic exhibit of birds. These are necessarily withheld from installation for a time until others properly belonging with them can be obtained.

Models of a South American Anaconda and a Belize Crocodile were temporarily exhibited in the hall of reptiles, but were later removed for rearrangement since the Anaconda showed striking qualities which seemed to warrant the devotion of an entire case to it. Further models of reptiles have been made but not installed. These include a Florida King Snake, a Corn Snake, a Chicken Snake, a Glass Snake and a Gila Monster. The two American Crocodiles, begun in 1923, were completed, and only await delivery of a case for installation in a large group for which accessions are practically all prepared.

A special case of recently mounted fishes was shown in Stanley Field Hall. One side of this was devoted to game fishes of our northern lakes and streams, especially pike, pickerel and muskellunge, showing the distinctions between the scientifically recognizable varieties which are so often confused in the popular mind. On the other side of the case was displayed a collection of Pacific Coast food fishes, mostly from the vicinity of Catalina Island, and presented to the Museum by Mr. Keith Spaulding. Various other fish specimens were finished but not installed, and at the close of the year nearly 200 were on hand in partly prepared condition.

Considerable progress, despite pressure of other work, was made on the determining and respreading of the North American butterflies and moths selected for exhibition, with the result that the installation of some of this material may be confidently expected in 1925.

Two special exhibits of zoological pictures were carried out during the year. The first of these consisted of 72 oil paintings of fishes and angling scenes by Mr. Louis Rhead, which were on view in Room 12 for several months. Later, an exhibition was given of hand colored photographs of birds by Mr. E. H. Matern of Detroit.

In December, fourteen new exhibition cases of improved design were delivered, and arrangements were begun for their utilization at once in the systematic halls of birds and mammals. Old style cases, as released from the hall of mammals, were transferred to the hall of osteology to be used for the skeletons of large mammals heretofore shown on open

stands. At the close of the year, these transfers and rearrangements were under way.

Much needed equipment in the offices and work rooms of the Department was provided, especially in the divisions of Reptiles and Osteology, where built-in storage cases of good design were constructed. These have made possible the unpacking and transfer of collections from temporary to permanent quarters where permanent systems of arrangement and labeling may be put into effect. In the Division of Reptiles, especially, the arrangement of cases, trays, work tables, catalogues, files and books is all that could be desired. Incoming material can be cared for promptly and without waste of time, while among the thousands of specimens stored, any one needed may be found at a moment's notice.

The removal of the principal taxidermists' quarters from the ground floor to the fourth floor has proved highly successful. The conditions of accessibility, space, light and air in the new quarters are practically ideal, and fulfill to an unusual degree the rather exacting requirements of artist, sculptor and skin dresser.

In the exhibition halls, the installation of a new system of artificial lighting by which all the large groups receive top light, has resulted in very great improvement. All the cases containing bird groups and others having painted backgrounds have been opened, and the specimens and accessories cleaned and renovated. Meanwhile, the backgrounds have been cleaned of stains, and considerable repainting has been done to overcome defects incurred through unavoidable exposure during and since moving them from the old Museum building. The African Elephants in Stanley Field Hall also were cleaned and their skins given such external treatment as seemed advisable to insure their further preservation in good condition.

The continued generous contributions of Mr. Edward E. Ayer to the zoological library, especially in the subjects of ornithology and ichthyology, made it necessary to provide more shelf room for the rapidly growing collection of books. The crowded condition was relieved by the addition of three new cases which involved a complete rearrangement of all the books. This was carried out under the supervision of Associate Curator Gerhard with the assistance of several other members of the staff. The library is now well arranged under a uniform system of classification in which provision is made for considerable future expansion.

Good progress was made during the year in the preparation of rough specimens received from recent expeditions. The taxidermists, when

time could be spared from exhibition work, have prepared a considerable number of mammal skins for the reference collection, and the skin dresser has been kept busy with the large amount of material needing his attention. The osteologist has cleaned some 800 skulls and a small number of skeletons in addition to the work of unpacking, classifying, and arranging the general osteological collections in the new storage cases.

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION

At the close of the year, 830 cases were available for loaning to the schools of Chicago. This total is an increase of sixty cases over the preceding year. Several more cases would have been added to the series had there not been a delay on the part of the cabinet makers in delivering cases to the Department. Work on most of the new cases was started since the first of the year 1924, although preparation on a few of the cases that were finished began late in the year 1923. In addition to the cases completed a number are in various stages of preparation.

The several hundred cases that have been in constant use in the schools during the 1923-1924 school year, were carefully inspected for such repairs to the cases and their contents as might be necessary. The number of cases requiring repairs was exceedingly small in comparison with the large number in circulation.

The coöperation of Swift & Company enabled the Department to prepare six duplicated cases of "Beef and By-products." Under this heading are exhibited miniatures of a Hereford steer, and a side of beef outlined to show the various obtainable cuts, and specimens of thirty or more well-known by-products of cattle. It has been possible for this Department, through the aid of Sprague, Warner and Company, to prepare four interesting and attractive cases of Spanish Paprika. In preparing cases of natural history subjects it has been the purpose of this Department to use specimens that are to be found in and around Chicago. As a result of this endeavor there have been prepared cases of 290 such subjects. Of this number 173 are of different species of birds, 34 are of various insects, 17 of different fishes, 16 of mammals, 14 of reptiles, and 16 of plants. Many of these specimens are shown in habitat groups.

A schedule which provides that two cases shall be continually in each school became effective at the beginning of the present school year. In accordance with this arrangement two cases are now delivered to each school and left there for ten school days. At the end of that period they

are collected for delivery elsewhere and two other cases are substituted for them. By this procedure, 656 cases are kept in continuous circulation among the schools. During the school year the 328 schools on the schedule are loaned two cases on each of the seventeen deliveries that are made to each of the schools. This will insure to each school the use of thirty-four cases during the school year.

An additional truck was placed in operation at the beginning of the present school year. With the two trucks now in use not only a dependable schedule is assured, but also the loaning of cases with greater frequency and promptness than heretofore, when requested by schools for specific purposes. The body of the new truck is similar in appearance and detail of construction to the one originally planned for this Department, which is still in use.

During the year a requisition was made for one hundred new cases similar to those in use since the creation of this Department, which have met the many requirements demanded of them.

Gads Hill Center, a community settlement at 1919 West Cullerton Street, made application for the loan of cases, and this service has been extended by the Department. The Head Resident of the Gads Hill Center in reporting the aid the cases had been to that institution, stated: "We keep the cases in our lobby. Last year we ran an attendance of 90,000 and I think we are holding that average this year. Every one does not stop to look at the cases, but great numbers do, and because they do not come in crowds they have time to pause, pull out the slides and read. I know it all counts."

During the past year, as in previous years, requests were received from sources other than schools of Chicago for the loan of cases. In response to these requests eight cases of natural history subjects were loaned to the Chicago Art Institute from June 30th to August 22nd, for use in its juvenile section; and ten cases were loaned for one month to the Chicago Chapter of the Wild Flowers Preservation Society of America, for its annual exhibition held at the Art Institute. Again, the Secretary of Bureau of Parks, Playgrounds and Beaches requested a number of cases for exhibition on the Municipal Pier during the summer vacation period. In compliance with this request twenty-four cases were loaned. The Promotional Manager of the Central Y. M. C. A. school asked for, and was loaned, twelve cases for educational purposes. The Harris Trust and Savings Bank was loaned two cases of bird subjects. These cases were exhibited for a period of two weeks in a street window of the bank. To illustrate a lecture given at the New First Church to the Gnosis Club, two cases were loaned. The Rochester (Minnesota) Art

Association was loaned four cases, and two cases were loaned to the Nashville (Tennessee) Art Gallery.

GUIDE LECTURERS.—As in former years, the guide-lecture service was extended to classes from public, parochial and private schools, to clubs, conventions, and other groups of visitors to the Museum. During the year an assistant guide-lecturer was added to the staff and the service was expanded into several new fields. One of the first innovations was a Vacation Course of Instruction given during the Summer months for children recommended by members of the Museum. This course was composed of a series of ten lessons based on Museum exhibits, supplemented by sets of lantern slides. It was attended by 26 classes with an enrollment of 222 children. A further addition to the work was made by providing illustrated lectures in connection with the tours for women's clubs. These lectures served either as an introduction to the Museum collections as a whole, or to the particular collection to be studied by the club. The lecture on "Activities Behind the Scenes," in which the history of the Museum, its methods of making collections and the preparation of exhibits were described, was of particular interest to the club members. There were 41 of these lectures given with an attendance of 900 individuals. School classes, numbering 128, enjoyed the privilege of conducted tours through the collections correlating with their course of study. Towards the close of the year reprints of the "Outline of the Elementary Public School Curriculum and Museum Exhibits Showing the Correlation in Geography, History, Science and Manual Arts" were distributed to all school principals in the city, for the purpose of stimulating their interest in the Museum guide lecture service. The clubs and conventions receiving guide-lecture service during the year numbered 98, with an attendance of 2,410. There were 135 lectures on Museum exhibits given to general visitors, in accordance with the printed schedule. A total of 428 lectures were given by the guide-lecturers to 9,091 individuals.

ART RESEARCH CLASSES.—During the year the classes in research from the Art Institute of Chicago visited the Museum daily. There were approximately 400 students enrolled in these classes under the direction of five instructors. The subjects studied included primitive design, Indian basketry, pottery, textiles and beadwork, Egyptian, Greek and Roman pottery, Chinese vase forms and designs, Javanese batik and Melanesian design and miscellaneous design. The nature studies consisted of leaves, flowers and seeds, birds, insects, reptiles, fish, shells, rock coloration and precious stones, large and small. Other subjects are



THE EXTINCT PASSENGER PIGEON; A HABITAT GROUP.
BIRDS PRESENTED BY MR. STANLEY FIELD; NEST BY JUDGE R. M. BARNES.
TAXIDERM BY ASHLEY HINE.
About one-eighth natural size.

UNIVERSITY OF ILLINOIS LIBRARY

being introduced as the instructors become more acquainted with the exhibits and the vast wealth of material contained in the Institution.

A portfolio on research "Design in Nature," compiled from the work of students, containing approximately 220 plates, showing about 3,000 designs, is now being produced by the Museum Press. The work in this portfolio is highly illustrative of the educational advantages of such organized classes in the Museum.

PUBLICITY

GENERAL.—During the past year the scope of the Publicity work was enlarged to include the aims and purposes of the Museum organization, in order that they might be more clearly understood by the public. A larger geographic territory was covered, both by press notices and advertising, and as a result a correspondingly larger public was informed of the work accomplished by the Museum staff.

The publicity during the early period of its work was largely confined to acquainting the public with the location, approaches and free days of the Museum. While this was continued throughout the year, a larger number of press notices were sent out with a view to creating an interest in the personnel of the Institution, and in the results of their research and laboratory work.

In the press notices the primary consideration was whether the story would interest the public sufficiently to attract it to the Museum for further investigation of the exhibits on display. This necessarily led to the curtailment of articles of a more technical character.

The advertising, with one exception, was changed from directional placards to posters of the exhibits on display at the Museum. The Institution is grateful to the transportation companies for their contribution of advertising space, and greatly indebted to them.

PRESS PUBLICITY.—An average of two newspaper notices were published each week in the local papers. Of the one hundred and twenty articles printed, thirty-eight were selected by the Associated Press or other news syndicates, and received a national circulation. Descriptive articles of the Museum expeditions to South America were sent to the South American press by the Associated and United Press Syndicate. The foreign language press of the city, which reaches over eight hundred thousand persons, was included this year for newspaper notices. These newspapers gave the Museum an unusual amount of space for general articles describing the departmental exhibits.

Photographs from the expeditions being conducted by the Museum, and photographs of new exhibits, were printed by the Sunday Tribune,

Daily News, N. E. A. Service, Underwood and Underwood, Atlantic-Pacific, International News Service, and Popular Science Monthly, the news services of these syndicates covering the entire country. Reviews of the leaflet and design series of publications were published by the literary supplements of the local papers, New York Times and World, and popular scientific magazines. Notices of the lecture series were printed in the convention column of the daily press through the courtesy of the Chicago Association of Commerce.

ADVERTISING.—A total of 22,600 posters were distributed during the year to the transportation agencies, of which 8,300 were printed outside of the Museum at the expense of these companies. The others were printed by the Museum.

A series of six color posters, representing Museum exhibits, were displayed for one year in the Elevated Line Stations. Two larger posters of Museum exhibits were printed by the Chicago Rapid Transit Company, at their expense, and displayed on the elevated platforms for four months. Placards announcing the lecture courses were also displayed by the Rapid Transit Company in the spring and fall. An additional general placard was placed on the station platforms in December. The Surface Lines printed, at their own expense, a number of overhead posters advertising the Museum, which were placed on the cars in March and August. They also displayed lecture placards in the bulkheads of the cars during the spring and fall. This represented a total display of 6,200 posters printed by the Museum. The Illinois Central, through the courtesy of the Inland Advertising Company, granted space for a year in their suburban service. Two posters were displayed for a period of six months each, and lecture programs were placed on the station platforms during the spring and autumn courses. The Rock Island Suburban Service, and the Aurora and Elgin Electric Lines also placed the Museum lecture programs on their station platforms during the spring and fall.

Three-color posters of the Museum building, giving the hours, location and other information concerning the Institution were prominently placed during January and February by the following stores: Marshall Field & Co., Carson, Pirie, Scott & Co., Charles A. Stevens & Bros., Davis Dry Goods Co., Mandel Bros., The Hub, and Hillman's Department Store. For this purpose three hundred posters were used.

Museum posters and direction folders, giving the correct motor routes to the Museum, were sent to all of the motor clubs in the central western states. These posters and cards were placed in their tourists' bureau for free distribution to motorists.

General and directional advertisements were placed in six of the largest foreign language papers on Saturdays and Sundays for the month of August, and a similar advertisement for the Saturday and Sunday preceding Labor Day. Marshall Field and Company placed an editorial concerning the Museum in their advertising columns, which was shown for two days in all local newspapers. This gave the editorial a circulation of approximately 1,500,000.

The Automobile Blue Book, Associated Tours Guide and TIB Auto Route Books published directions for reaching the Museum by motor. The Motor News in its September issue printed a special cover showing the Museum building.

The Chicago Sunday Schools were added to the list of institutions displaying the lecture courses of the Museum on their bulletin boards.

RADIO.—Eleven radio talks were given on Friday nights during April, May and June by members of the scientific staff. Reports received from the WMAQ, Daily News Radio Station, show that these talks were enthusiastically received throughout the country.

NEWSREELS.—Newsreels were made of the following subjects: **PATHE:** Cement Plant, Construction of Fulgurite, Presentation of Turquoise to Museum, Comparative sizes of Topaz, Turquoise and other stones, Construction of plaster cast models of face and hands of Chinese students and process of dressing manikin for exhibits of Chinese theatrical costumes, Film showing steps in new celluloid process. **INTERNATIONAL NEWSREEL:** Film showing Topaz and Turquoise. **FOX FILM CORPORATION:** Film of fossil eggs.

TRADE PAPERS.—Articles on economic exhibits in the Museum were published by the following trade and class journals: Paint, Oil and Chemical Review, Jeweler's Circular, Power Boating, Central Furrier, Furniture Journal, American Lumberman, Women's World, Drake-a-Day, Yellow Cab Taxigrams. Special articles on the Museum were printed by the following publications: Daily News Almanac, World's Almanac, Encyclopedia Americana and the Architectural Record.

DIRECTION FOLDERS.—There were distributed to the information booths, hotels and railroad stations in Chicago 10,600 folders on "How to Reach Field Museum." A form letter has been sent each month to the chairman of all large conventions, offering them a supply of these direction folders. Eighteen conventions replied, and requested 10,000 folders, which were supplied.

PRINTING.—The total number of impressions made in the Section of Printing during the year amounted to approximately 1,000,000. The following publications were printed and bound during the year by this section:

Regular publication series.....	9,807
Design Series.....	6,126
Leaflet Series.....	66,649
General Guide.....	25,025
Publication and leaflet price lists.....	447
Geographic Society Year Book	1,829
Total.....	109,883

The number of labels and other impressions printed follows:

	Exhibition Labels	Other Impressions
Anthropology.....	3,226	8,226
Botany.....	1,608	14,904
Geology.....	434	1,950
Zoology.....	358	5,750
Harris Extension.....	451	3,110
General.....	.....	291,857
Geographic Society of Chicago.....	.....	58,225
Total.....	6,077	384,022

The press work on two botanical leaflets, the two Art Design numbers for Anthropology, and the catalogue of the Birds of the Americas was unusual in that an illustration of from two to four colors was used in each, these illustrations alone requiring 142,175 impressions.

SECTION OF PHOTOGRAPHY AND ILLUSTRATION.—The following tabulation sets forth the work performed in this section during the year:

	Number of Lantern Slides Made	Number of Negatives Made	Number of Prints Made	Number of Negatives Developed for Field Expeditions	Movie Films Made
General.....	14	512	1,778	24	..
Anthropology.....	73	535	2,879	...	..
Botany.....	...	180	2,596	72	32
Geology.....	386	107	1,141	360	..
Zoology.....	161	104	828	...	15
Harris Extension.....	...	80	273	...	..
Sale.....	10	...	38	...	..
Gift.....	7	...	69	...	..
Totals.....	651	1,518	9,602	456	47

PHOTOGRAVURES.—A photogravure power press has been added to the Section during the year. A room for the installation of this press

was provided on the ground floor, adjoining the press room. The number of photogravures printed during the year is indicated below:

Publication illustrations.....	48,000
Leaflet illustrations.....	187,000
Picture Post Card Albums.....	99,600
Post Cards of Building.....	15,000
Special.....	12,000
Total.....	<u>361,600</u>

ARTIST.—The following statement shows the work performed by this section during the year:

ANTHROPOLOGY

- 1 drawing of Japanese pagoda.
- 1 drawing of a spear.
- 14 Japanese and Chinese photographs retouched.
- 3 rubbings retouched.
- 24 photographs retouched and figures attached.

GEOLOGY

- 3 large backgrounds painted for the blast furnace models.
- Retouching and coloring of cement model.
- Retouching and placing figures on fossil horse and plants.
- Alterations and retouching for paleontological publication illustrations.

BOTANY

- 2 enlarged photographs colored.
- 2 photographs retouched.
- 1 line drawing of cover design for Wild Flower leaflets.
- 154 ink tracings; 17 figures.
- 1 pen drawing of poison ivy seeds.
- 28 petals of Victoria regia colored.
- 1 seal redrawn.

ZOOLOGY

- 6 drawings of fish teeth.
- Lettering on 4 fish drawings.
- 9 drawings of mammal skulls.
- Assisting in the hanging of picture exhibits in Hall 12.

HARRIS EXTENSION

- 8 enlarged photographs colored backgrounds.
- Colored guide lines on 11 charts for cases.

PUBLICITY

- Cover design drawing for Motor News.
- Drawing of teepee for Surface Lines placard.
- Drawing of Museum building.
- Border design for direction cards.
- Line drawing of Egyptian hieroglyphics.
- 20 photographs retouched.

GENERAL

- 2 drawings of Membership certificate
- Color sketch for Trustees room.
- 10 lantern slides colored.
- 2 photographs retouched.
- Drawing and lettering for guide-lecture notices.
- Cuts repaired for Section of Printing.
- Letters renewed on books in Library.

PHOTOGRAPHY

- 28 photographs retouched and lantern slides blocked.

ATTENDANCE: The total attendance for the year is 643,285, which is an increase of 157,518 over the previous year. An analysis of the admissions is made elsewhere in this report.

Herewith are also submitted financial statement, list of accessions, names of members, etc.

D. C. DAVIES, Director.

ATTENDANCE STATISTICS

FROM JANUARY 1, 1924 TO DECEMBER 31, 1924.

Total Attendance	643,459
Paid Attendance	100,582
Free Admissions on Pay Days:	
Students	11,411
School Children	25,537
Teachers	1,188
Members	631
Special	1,412
Admissions on Free Days:	
Thursdays (52)	74,548
Saturdays (52)	161,752
Sundays (52)	266,398
Highest Attendance on any day (August 17, 1924)	11,501
Lowest Attendance on any day (February 4, 1924)	89
Highest Paid Attendance (September 1, 1924)	4,557
Average Daily Admissions (366 days)	1,758
Average Paid Admissions (210 days)	479
Number of Guides sold	13,240
Number of Articles checked	18,844
Number of Picture Post Cards sold	109,255
Publications—Receipts	\$1,349.48
Photographs and Sculpture Sets—Receipts	194.75
Handbooks, Leaflets, etc.—Receipts	1,077.86

GENERAL FUND

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS

For the Year Ending December 31, 1924

Balance December 31, 1924.....\$ 45,651.20

RECEIPTS

Income—Endowment, General and Door Receipts....	\$ 249,285.40	
South Park Commissioners.....	119,924.87	
Sundry Receipts.....	23,247.78	
Memberships.....	64,490.00	
Contributions.....	242,504.84	
Sales of Securities.....	574,919.94	
	\$1,274,372.83	
		\$1,320,024.03

DISBURSEMENTS

Operating Expenses.....	\$ 427,431.95	
Expeditions.....	25,633.32	
Collections Purchased.....	10,312.16	
Furniture and Fixtures.....	12,156.11	
Expenditures on Building and Approaches.....	87,805.42	
Securities Purchased.....	703,524.54	
	\$1,266,863.50	
Transferred to Sinking Funds.....	9,600.00	
	\$1,276,463.50	
Cash Balance December 31, 1924.....		\$ 43,560.53

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION

Statement of Income and Expenses for the Year 1924

Interest and Dividends on Investments	\$	21,577.84
Operating Expenses		19,057.29
		19,057.29
	\$	2,520.55
Deduction from Income (Depreciation of Automobile Delivery Car) . .		602.24
		602.24
Balance transferred to Surplus	\$	1,918.31

STANLEY FIELD PLANT REPRODUCTION FUND

Statement of Income and Expenses for the Year 1924

Balance December 31, 1923	\$	880.39
Contributions by Stanley Field during 1924		12,600.00
		12,600.00
	\$	13,480.39
Operating Expenses 1924		13,413.47
		13,413.47
Balance December 31, 1924	\$	66.92

STANLEY FIELD MUSEUM EMPLOYEES PENSION FUND

Statement of Income and Expenses for the Year 1924

Interest and Dividends on Investments	\$	11,825.57
Pensions and Group Insurance for 1924		8,545.14
		8,545.14
Balance added to Pension Fund	\$	3,280.43

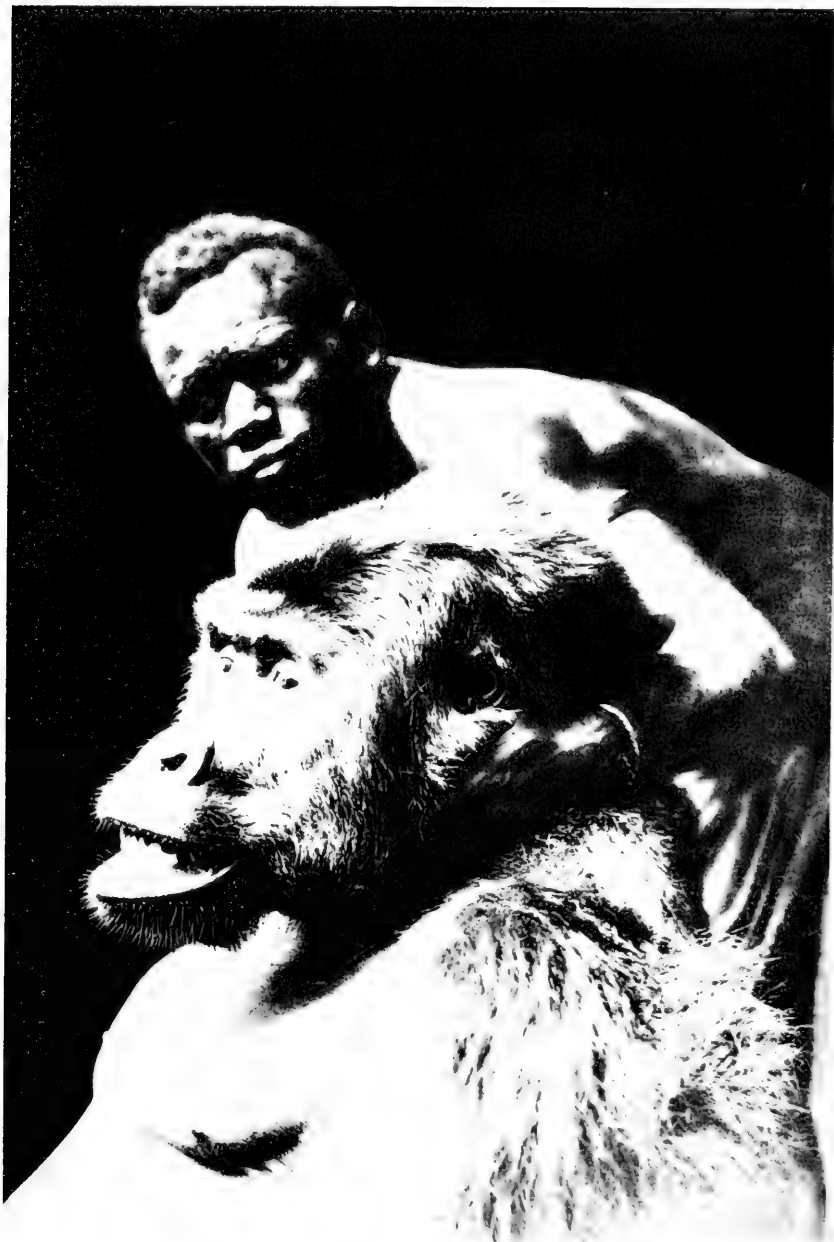
ACCESSIONS

DEPARTMENT OF ANTHROPOLOGY

- ADAMS, MRS. JOSEPH, Chicago.
 1 Navaho double size saddle-blanket—Arizona, New Mexico (gift).
- 19 objects: 1 basket, China; silver ear-rings and fillet of Negro woman, Trinidad; 1 silver necklace, Navaho; 1 Attu basket; 1 Haida basket; 1 nest miniature baskets, 1 miniature covered basket, 1 small basket, miniature colored vessels, Chile; 1 basket, Samoa; 1 metal bracelet, Africa; 1 brooch, N. W. Africa; 2 baskets and 1 dress ornament, Sudan; 3 necklaces of faience and stone beads, Egypt;—China; Trinidad; Navaho, Attu, Haida, United States; Chile; Samoa; Africa; Egypt (gift).
- AYER, EDWARD E., Chicago.
 22 pewter objects: plates, trays, bowls, coffee-pots, milk-pitchers, sugar-bowls, water-heater, candlesticks, etc.—England and Germany (gift).
- 10 pewter objects: 4 tea-pots, 1 tankard, 5 plates—England and Germany (gift).
- 7 pewter objects: 1 baptismal basin, 4 church utensils, 1 coffee-pot, 1 bucket—England, Germany and France (gift).
- 30 pewter objects: 18 candlesticks, 1 pair figures, 10 tea-pots, 1 tureen—China (gift).
- 9 pewter objects: 1 pair of lamps, 1 round box containing rosary, 2 sets of three altar-pieces, 1 buffalo figure, etc.—China (gift).
- 3 pewter tea-pots and 1 soup-bowl—Canton, China (gift).
- 1 pair of pewter candlesticks, 1 pewter soup-bowl—Swatow, China (gift).
- 3 pewter objects: 1 inscribed tablet of the Han period, 2 tea-canisters—China (gift).
- 4 pewter tea-canisters—Japan; 1 pewter tray with inlaid brass designs—China (gift).
- 3 pewter tea-pots and 2 pewter plates—China and England (gift).
- 12 pewter objects: 3 trays, 5 tea-pots, 1 small pitcher, 3 tea-canisters—China and Japan (gift).
- 1 pewter plate—Germany (gift).
- 1 pewter dish inlaid with brass—China (gift).
- 1 rectangular pewter box inlaid with brass—China (gift).
- 2 pewter tea-canisters, 1 pewter chafing-dish—China (gift).
- 1 small necklace of carnelian, glass and other beads—Ancient Egypt (gift).
- 1 Babylonian clay tablet of Nergal, Governor of Kish, containing list of animals presented for sacrifices, *ca.* 2350 B.C.—Drehem, Mesopotamia (gift).
- AYER, MRS. EDWARD E., Chicago.
 1 pewter pitcher—Strasbourg, Alsace, France (gift).
- BARRETT, MISS ADELE, Chicago.
 Suit of armor of Samurai complete with mask, sword, spear and 2 fans (14th century)—Japan (gift).
- BENNETT, MISS HELEN B., Chicago.
 About 34 specimens from prehistoric Indian grave: 2 pieces of braided bark, 1 bark fiber cord, 1 coil of unbaked clay, corn cobs, corn stalks, and other plant remains, plum stone and pieces of wood, 15 animal bones, 3 land snails, 4 clam shells, accompanied by 16 photographs showing grave and its location—Salts Bluff Rockshelter, Benton County, Arkansas (gift).
- BLACKSTONE, MRS. T. B., Chicago.
 About 200 gourds, pottery vessels and accessories for keeping singing and fighting insects—Peking, China (gift).

- BULLEN, MRS. FREDERICK F., Chicago.
Large embroidered cover of white silk. Beginning of 19th century—Canton, China (gift).
- CHANDLER, M. G., Chicago.
19 objects: 3 women's appliqué robes, 1 woman's waist, 1 man's beaded shirt, 4 woven bags, 1 rawhide bag, 5 pair leggings, 1 woven burden strap, 1 knife, 1 feather necklace, 1 pair moccasins—Fox, Winnebago, Arapaho, Iroquois, Maori, United States and New Zealand (exchange).
- DUNLAP, MRS. EVA W., Peking, China.
62 popular woodcuts and color prints—Peking, China (gift).
- EMMONS, LIEUT. G. T., Princeton, New Jersey.
Outfit of Tsimshian shaman, Kwakiutl coppers, Tlingit trinket basket, 2 jade implements from Tlingit, roll of cherry bark from Salish—Tsimshian, Kwakiutl, Tlingit and Salish, British Columbia and Alaska (exchange).
- FIELD MUSEUM OF NATURAL HISTORY.
Collected by J. B. Abbott and G. F. Sternberg—Capt. Marshall Field Palaeontological Expedition to Argentina:
1 human skull and 5 flint implements associated with it—Lago Colhue Huapi, Territory of Santa Cruz, Argentina.
Collected by C. C. Sanborn.—Capt. Marshall Field Expedition to Chile and Argentina:
1 prehistoric slate celt and 1 prehistoric slate projectile point—Chiloe Island, Chile.
1 stone axe with polished blade—Chile.
Purchases:
1 ancient jade adze—New Zealand, from Mrs. J. F. Hoffman, Wharton, New Jersey.
80 ivory carvings—Eskimo, Labrador, Canada, from Howard J. Smith, Grand Rapids, Mich.
- FIELD MUSEUM-OXFORD UNIVERSITY JOINT EXPEDITION (Capt. Marshall Field Fund).
About 634 objects: Pottery vessels and sherds, clay figures, bricks, inscribed tablets, copper vessels, tools, weapons, and bracelets, silver cup and bracelets, iron, stone, bone and shell objects, necklaces, beads, and glass bottle—Kish, Mesopotamia.
- GRIMM, MRS. EMMA, Chicago.
1 triangular axe of limestone, grooved on three sides—Sugar River near Brodhead, Rock County, Wisconsin (gift).
- HARDY, F. A., EVANSTON, ILL.
1 large old brass image, solid cast, of standing Buddha on wooden base—Mandalay, Burma (gift).
- HELLMAYR, DR. C. E., Chicago.
2 stone axe-heads—Jaru (Parintintin) Tufian Indians, Rio Machados, affluent of Rio Madeira, Brazil, South America (gift).
- HULBERT, MRS. E. D., Chicago.
1 ancient *poi* bowl, 1 tray of cola wood—Hawaii (gift).
- HULL HOUSE, Chicago.
1 Persian rug presented by H. H. Topakyan; 1 pair Chinese scales for weighing silk, presented by B. F. Schlessinger; 1 woolen embroidered Turkish saddlebags; and 77 tassels purchased by Dr. U. Jahn—Persia, China, Turkey, and Europe (loan material returned).
- JONES, ARTHUR B., Chicago.
1284 objects of nephrite, stone, feather and flax robes, kilts and girdles, carved clubs, carved wooden boxes and Maori utensils—Maori and Moriori, New Zealand, Tasmania and Solomon Islands (gift).
- JUTZI, JOHN, and TOM LADD, Chicago.
1 clay pot and 2 skeletons in fragmentary condition—Town of Lake Hunting and Fishing Club, 7 miles east of Momence, Illinois (gift).
- KEEP, CHAUNCEY, Chicago.
1 red obsidian spear-head—Yurok, California (gift).

1000



LARGE MALE GORILLA FROM BELGIAN CONGO.

FIELD STUDY FROM CENTRAL AFRICAN EXPEDITION
UNDER THE AUSPICES OF CAPTAIN MARSHALL FIELD AND MAJOR A. M. COLLINS.

About one-sixth natural size.

KNEELAND, MRS. L. M., Chicago.

- 10 objects: 1 fan and comb from Samoa; 2 Chinese ivory fans; 1 Korean fan; 1 Egyptian fan; 1 native hat, Kandy, Ceylon; 2 beaded balls from Sioux; 1 carved bowl and 1 carved cup from South America—Samoa, China, Korea, Ceylon, Egypt, North and South America, (gift).

LO, D. H., W. Lafayette, Indiana.

- Rubbing from Chinese inscription on stone tablet, being handwriting of Lo Yuan-hang—China (gift).

LOO, CHING-TSAI, New York.

- 1 foot-measure of the Chou dynasty (1122-247 B.C.)—Cheng-chou, Honan, China (gift).

PLANTZ, HENRY F., Oconomowoc, Wisconsin.

- 1 prehistoric bone needle from grave—Oconomowoc, Wa u k e s h a County, Wisconsin (gift).

PLANTZ, H. W., Chicago.

- 5 objects: 1 Eskimo coiled basket and 1 carved billiken, 1 Nootka trinket basket and 1 circular mat, 1 Middle Mesa coiled plaque—Nootka, Hopi, Eskimo, Vancouver Island, Arizona and Alaska (gift).

ROCK, DR. JOSEPH F., Washington, D. C.

- Mo-so manuscript of five folios with colored pictographs—Li-kiang, Yün-nan, China (gift).

SARGENT, HOMER E., Pasadena, California.

- 1 shoulder blade of moose used for moose call, birch bow with 7 arrows, pair of snowshoes—Aishihik tribe and Aborigines, Kluane Lake and Lake Teslin, Yukon Territory, Canada (gift).
22 old tobacco-pipes—Japan (gift).

SCOTT, MRS. JAMES W., Chicago.

- 26 objects: 3 baskets, 1 cigarette case, 1 brass bell, 6 hats, 3 fans, 1 lacquered tray, 1 pipe stem and 6 miscellaneous objects, 1 painted Greek vase, 1 pair saddlebags, 1 pair of moccasins, etc.—Alaska, Korea, Greece, and Palestine (gift).

- 17 objects: 1 Chilkat blanket, 1 bamboo cane, 1 silk bag, 1 belt cord, 1 pair straw sandals, 1 wooden doll, 2 strings of miniature dolls, 1 silk tassel, 1 card game, 1 tobacco-pipe, 1 thimble, 1 porcelain spoon, etc.—Alaska, Japan, Korea, China, Hawaii, Greece, North Africa (gift).

SELLECK, E. R., Sterling, Illinois.

- 1 pre-Columbian Indian skull dug up from an abandoned sand-pit—Sterling, Illinois (gift).

SKINNER, A., Milwaukee, Wisconsin.

- Woman's buckskin dress, with pair of boot moccasins—Comanche, Oklahoma (exchange).

STEVENSON, ROBERT E., Peking, China.

- 4 objects: 1 ivory insect cage, 1 ivory box, 1 glazed jar, 1 gourd with ivory cover—Peking, China (gift).

THOMAS, ESTATE OF ELEANOR M. H., Chicago.

- 1 large decorated brass tray—Morocco, Africa (gift).

TSUKAMOTO, MRS. KOSHICHI, Chicago.

- 2 completely dressed carved wooden figures of Japanese women. Silk dresses in style of Tokugawa and Fujiwara periods—Kyoto, Japan (gift).

WILLIAMS, MRS. C. HOWARD, Chicago.

- Birchbark model of canoe decorated with porcupine quill designs—North Dakota (gift).

WINSLOW, MISS SOPHY, Chicago.

- 2 oil portraits representing chief of Blackfeet and his wife, by Carl Wimar—United States (gift).

WINTERNITZ, L., Grand Rapids, Michigan.

- Male's cotton garment and 1 doll dressed as woman—Seminole, Florida (gift).

- 3 dolls representing Seminole man, woman and girl—Florida (gift).

DEPARTMENT OF BOTANY

- ALLEN, F. S., Honolulu.
1 economic specimen (gift). 61 economic specimens—various localities.
- BALL, C. R., Washington, D. C.
30 herbarium specimens (gift). GRAY HERBARIUM, Cambridge, Massachusetts.
587 herbarium specimens (exchange).
- BLAKE, S. F., Washington, D. C.
3 herbarium specimens (gift). HYNES, J. A., Chicago, Illinois.
1 economic specimen (gift).
- DAHLGREN, B. E., Chicago, Illinois.
13 economic specimens (gift). MURRAY, M. K., Chicago, Illinois.
1 economic specimen (gift).
- DUGGERT, MISS F., Chicago, Illinois.
11 herbarium specimens (gift). PAYSON, PROF. E. B., Laramie, Wyoming.
150 herbarium specimens (gift).
- EVANS, MISS P. A.
1 herbarium specimen (gift). RECORD, PROF. S. J., New Haven, Connecticut.
58 herbarium specimens (gift).
1 economic specimen (gift).
- FIELD MUSEUM OF NATURAL HISTORY.
Collected by A. C. Persaud (Capt. Marshall Field British Guiana Expedition):
184 herbarium specimens.
87 wood specimens.
501 duplicate specimens.
ROSE, DR. J. N., Washington, D. C.
4 herbarium specimens (gift).
- Collected by J. F. Macbride:
5 herbarium specimens—Illinois and Indiana. ROYAL BOTANIC GARDENS, Kew, England.
335 herbarium specimens (exchange).
- Stanley Field Laboratory:
20 models and reproductions of plants. SHERFF, E. E., Chicago, Illinois.
12 herbarium specimens (gift).
- Transfer from Department of Geology:
500 herbarium specimens.
16 economic specimens. THORLAKSON, MISS G., Wheaton, Illinois.
1 herbarium specimen (gift).
- Transfer from Department of Geology:
5 herbarium specimens.
1 economic specimen. U. S. DEPARTMENT OF AGRICULTURE, Washington, D. C.
80 herbarium specimens (exchange).
4 herbarium specimens (gift).
- Purchases:
12,341 herbarium specimens—various localities. U. S. NATIONAL MUSEUM, Washington, D. C.
1554 herbarium specimens (exchange).
- WELLS, W. H.
1 economic specimen (gift).

DEPARTMENT OF GEOLOGY

- ADAMSON, GEO. H., Chicago.
1 specimen synthetic alexandrite (gift). BLOCHER, ARTHUR, Amboy, Illinois.
9 specimens invertebrate fossils—Amboy, Illinois (gift).
- AKERS, VIVIAN, W., Norway, Maine.
2 photographs of Bennett Mine—Buckfield, Maine (gift). BURROUGHS, H. S., Chicago.
2 teeth of fossil elephant—Snake River, Southern Idaho (gift).
- ARGETSINGER, MRS. E. H., Pipestone, Minnesota.
1 specimen bleached quartzite—Pipestone, Minnesota (gift). CHALMERS, WILLIAM J., Chicago.
25 specimens crystallized minerals—Various localities (gift).
3 specimens crystallized minerals—Prince of Wales Island, Alaska (gift).

- COLLINS, FLOYD, Cave City, Kentucky.
32 specimens stalactites and gypsum rosettes—Great Crystal Cave, Cave City, Kentucky (gift).
- DENNIS, BROSE, Joplin, Missouri.
1 specimen blende with quartz—Joplin, Missouri (gift).
- ELWELL, WILBUR J., Danbury, Connecticut.
2 specimens beryl—Branchville, Connecticut (gift).
1 specimen lithiophilite—Branchville, Connecticut (gift).
- FIELD MUSEUM OF NATURAL HISTORY.
Collected by O. C. Farrington—Capt. Marshall Field Second Brazilian Expedition 1923:
381 specimens minerals—Bahia, Brazil.
Collected by H. W. Nichols:
11 specimens axinite—Moneta Mine, Timmins, Ontario.
Collected by C. C. Sanborn—Capt. Marshall Field Chilean Expedition 1922-1923:
1 specimen fossil brachiopod—Caldera, Chile.
1 specimen halotrichite—Putre, Province of Tacna, Chile.
- Purchases:
1 specimen bi-colored cut sapphire—Australia.
6 specimens minerals—Arizona.
6 specimens minerals—Greenwood and Greenwood, Maine.
6 casts showing evolution of the horse.
1 stone meteorite—Coldwater, Kansas.
1 section of meteorite—Coldwater, Kansas.
1 stone meteorite—Ness County, Kansas.
57 microscopic slides of fossil foraminifera—Chicago.
- FREDERICKS, F. G., Bessie, North Dakota.
18 specimens minerals and septaria—North Dakota (gift).
- GREEN, U. D., Peebles, Ohio.
1 specimen peridotite—Kentucky (gift).
- GREENLAND, C. W., Timmins, Ontario.
3 specimens fougéite—Rochester Mine, Timmins, Ontario (gift).
- HALL, LEO. G., Downer's Grove, Illinois.
1 photograph of electric furnace (gift).
6 specimens high temperature alloys and products (gift).
- HEDIN, STANLEY, Chicago.
1 specimen fossil leaf in concretion—Mazon Creek, Illinois (gift).
- HOTHO, ALBERT, Chicago.
21 specimens dendrites—Lake Geneva, Wisconsin (gift).
4 specimens fossil coral—Lake Geneva, Wisconsin (gift).
- INDIANA LIMESTONE QUARRYMEN'S ASSOCIATION, THE, Bedford, Indiana.
21 finished specimens illustrating colors and textures of Indiana limestone—Lawrence and Monroe Counties, Indiana (gift).
3 specimens stylolites—Bedford, Lawrence County, Indiana (gift).
- KLIER, L., Chicago.
1 specimen septarium—Evansville, Arkansas (gift).
- LAKE SHORE MINES, Ltd., Kirkland Lake, Ontario.
2 specimens telluride gold ores—Kirkland Lake, Ontario (gift).
- LAUDOLF, MATH J., Peebles, Wisconsin.
3 specimens fossil brachiopods—Fond du Lac County, Wisconsin (gift).
- LAW, D. H., Dixon, Illinois.
1 specimen fossil "honeycomb" coral—Dixon, Illinois (gift).
- LEE, HENRY E., Rapid City, South Dakota.
20 specimens fossil plants—Lakota Formation, Blackhawk, South Dakota (exchange).
- MARTIN, THOS., Hoopston, Illinois.
1 specimen septarium—Starved Rock, Illinois (gift).
- MATHER, HON. STEPHEN T., Washington, D. C. and HARVEY, MESSRS. BYRON and FORD, Kansas City, Missouri.
2 sandstone slabs showing fossil tracks—Hermit Trail, Grand Canyon, Arizona (gift).

- MCCREA, W. S., Chicago.
3 photographs of concretions—Moorbridge, North Dakota (gift).
- MILLARD, F. L., Georgetown, British Guiana.
1 specimen melanterite—Venezuela (gift).
- MORRISON, J. CAMPBELL, Detroit, Michigan.
16 specimens peat briquettes (gift).
- NORTON, C. E., Chicago.
1 specimen fossil trilobite—Kankakee, Illinois (gift).
- OEFFINGER, ALBERT F., Whiting, Indiana.
82 specimens agate and chalcedony—Pacific Ocean Beach, between Coos Bay and Coquille River, Oregon (gift).
- OHIO HYDRATE & SUPPLY CO., THE, Woodville, Ohio.
12 specimens fossil clams—Near Woodville, Ohio (gift).
- PORCUPINE PAYMASTER MINES, Ltd., South Porcupine, Ontario.
1 specimen free gold in quartz—South Porcupine, Ontario (gift).
- RICH, MATT, Chicago.
2 specimens fossil fish—Fossil, Wyoming (gift).
- ROYSE, R. L., Ogden, Utah.
1 specimen silicified shells—Red Desert near Wamsutter, Wyoming (gift).
- RUGGLES, DR. W. L., Oak Park, Illinois.
1 specimen baculite showing separate septa—Near Crawford, Nebraska (gift).
- STANDARD OIL CO. (INDIANA), Chicago.
12 specimens "Travertine" candles, grease and oils (gift).
- STORTER, G. W., Everglades, Florida.
5 specimens limestone—Everglades, Florida (gift).
5 specimens sandstone—Everglades, Florida (gift).
- STROHRIGL, MICHAEL, Chicago.
1 specimen lava—Kilauea, Hawaiian Islands (gift).
- SWANK, R. S., Chicago.
1 specimen bleached sandstone containing native copper—Paola, Oklahoma (gift).
- TOPAKYAN, H. H., New York City, New York.
1 large gem turquoise—Persia (gift).
- U. S. NATIONAL MUSEUM, Washington, D. C.
1 polished section of Four Corners meteorite—Four Corners, New Mexico (exchange).
1 cast of Four Corners meteorite (exchange).
- WALZ, C. D., Hermosa, Black Hills, South Dakota.
2 specimens leached volcanic ash—Hermosa, Black Hills, South Dakota (gift).
- WIRICK, V. P., Chicago.
1 mastodon vertebra—Dixon, Illinois (gift).
- WRIGHT-HARGREAVES MINES, Ltd., Kirkland Lake, Ontario.
7 specimens tellurides of gold—Kirkland Lake, Ontario (gift).

DEPARTMENT OF ZOOLOGY

- ALLEE, DR. W. C., Chicago.
4 fishes, 67 frogs, 29 tadpoles, 37 lizards, 10 snakes, 2 turtles, 1 caiman head, 4 crocodile eggs—Canal Zone, Panama (gift).
- ALLEN, C. A., San Geronimo, California.
1 Gibbs' shrew—San Geronimo, California (gift).
- AMERICAN MUSEUM OF NATURAL HISTORY, New York City.
5 fishes—Various localities (exchange).
15 reptiles—China (exchange).
2 frogs—San Domingo (gift).
- AYER, EDWARD E., Chicago.
1 acorn store-house of California woodpecker—California (gift).



CRYSTAL OF GEM TOPAZ, MARAMBAIA, BRAZIL.
CAPTAIN MARSHALL FIELD SECOND BRAZILIAN EXPEDITION, 1923.
Weight 90 pounds. One-half actual size.

UNIVERSITY OF ILLINOIS LIBRARY

BARNES, JUDGE R. M., Lacon, Illinois.

1 passenger pigeon nest—Iowa (gift).

BARNES, DR. WILLIAM, Decatur, Illinois.

45 butterflies and moths—United States (gift).

BERTOLET, A. S., Thayer, Indiana.

2 beetles—Thayer, Indiana (gift).

BEZETT, HOWARD J., Baton Rouge, Louisiana.

18 fishes—Louisiana (exchange).

BOOSTER'S CLUB, Edgemont, South Dakota.

1 badger, 4 ticks—Edgemont, South Dakota (gift).

BOOTH FISHERIES COMPANY, Chicago.

1 lake sturgeon—Grand Haven, Michigan (gift).

BUTLER, A. L., Horsham, England.

2 hummingbirds—Succha, Peru (exchange).

COALE, HENRY K., Highland Park, Illinois.

1 skunk, 2 cottontail rabbits—Highland Park, Illinois (gift).

1 chickadee—Lake County, Illinois (gift).

121 birds—Various countries (exchange).

COLLINS, MAJOR A. M., Philadelphia, Pennsylvania.

226 butterflies—Belgian Congo, Africa (gift).

CONOVER, H. B., Chicago.

10 mallard eggs—Canada (gift).

9 oystercatcher eggs—Chiloe Island, Chile (gift).

DAVIS DRY GOODS COMPANY, Chicago.

115 fishes, 8 lizards, 19 turtles, 88 snakes, 2 aquaria, 6 snake vivaria, 1 leaf insect—Various localities (gift).

DAWSON, CHARLES W., Muskogee, Oklahoma.

6 turtles—Muskogee, Oklahoma (gift).

DICKEY, DONALD R., Pasadena, California.

1 California spotted owl—Humboldt County, California (exchange).

DITZEL, H. F., Chicago.

1 crane-fly—Chicago (gift).

DOE, JOHN, Watervliet, Michigan.

1 Baltimore oriole (gift).

DOHMEN, U. A., Chicago.

1 moth—Chicago (gift).

DONNELLEY, MRS. R. R., Chicago.

1 immature bald eagle—Chicago (gift).

EKVALL, ROBERT B., Titao, Kansu, China.

3 salamanders—Kansu, China (gift).

FIELD MUSEUM OF NATURAL HISTORY.

Collected by O. C. Farrington (Capt. Marshall Field Brazilian Expedition):

1 crab, 2 land shells, 69 insects, 16 toads—Brazil.

Collected by H. C. Holling:

14 mammals—Eldridge, Montana.

Collected by E. S. Riggs, G. F. Sternberg, and J. B. Abbott (Capt. Marshall Field Patagonian Expedition):

2 starfish, 46 shells, 1 beetle, 1 scorpion, 2 frogs, 26 lizards, 17 birds, 80 birds' eggs, 1 rhea nest, 23 mammals—Patagonia.

Collected by C. C. Sanborn (Capt. Marshall Field Chilean Expedition):

266 mammals, 574 birds, 3 fishes, 84 lizards, 9 snakes, 320 frogs and toads, 14 beetles, 3 bugs, 2 spiders, 1 crayfish—Bolivia and Chile.

Collected by C. C. Sanborn and F. J. W. Schmidt:

12 mammals, 15 frogs, 1 salamander, 1 turtle, 1 spider, 1 centipede—Highland Park, Illinois.

Collected by A. C. Weed and L. L. Pray (Capt. Marshall Field Expedition to Texas):

18 mammals, 32 birds, 1 bird's egg, 162 fishes, 117 fish casts, 4 fish skins, 1 turtle, 1 snake, 40 lizards, 13 frogs and toads, 850 insects of various orders—Southern Texas.

Collected by K. P. Schmidt and others:

2 salamanders, 27 frogs and toads, 3 snakes—Chicago.

Purchases:

5 birds—Alberta, Canada.

2 owls—Arizona.

32 mammals—Bolivia.

30 mammals—British Guiana.

- 2160 insects—British New Guinea.
 21 frogs and toads, 11 salamanders, 5 turtles, 25 snakes, 15 lizards—Brownsville, Texas.
 63 birds—Central and South America and New Guinea.
 25 frogs, 111 salamanders, 12 lizards, 1 snake, 5 turtles—Charleston, South Carolina.
 1 least weasel—Edmonton, Canada.
 297 birds—Europe.
 104 mammals, 49 birds—Europe and Asia.
 1 Rocky Mountain sheep—Fremont County, Wyoming.
 95 fishes—Gainesville, Florida.
 123 fishes—Laurel, Maryland.
 12 newts—Louisiana.
 390 birds—Brazil.
 12 frogs, 25 snakes, 65 lizards, 3 turtles—Santo Domingo.
 482 birds—South America.
 9 frogs, 2 salamanders, 6 lizards—South Carolina.
 77 frogs—Santa Catharina, Brazil.
 2 passenger pigeons—United States.
 15 antelopes, 5 mice, 3 bats, 20 monkeys, 7 baboons, 2 chimpanzees—West Africa.
- FONSECA, JOSÉ PINTO DA, São Paulo, Brazil.
 16 birds—São Paulo, Brazil (exchange).
- GERHARD, W. J., Chicago.
 23 insects, 1 snake—Illinois and Indiana.
- GIRVIN, JOHN, Manistique, Michigan.
 1 eel pout—Manistique, Michigan (gift).
- GLYNN, JOHN, Chicago.
 1 red-tailed hawk—Lake County, Illinois (gift).
- GUERET, E. N., Chicago.
 8 fishes, 4 salamanders, 8 insects—Sawyer County, Wisconsin (gift).
- HALPIN, P., Chicago.
 1 tiger salamander—Riverdale, Illinois (gift).
- HARE, F. E., Manchester, Iowa.
 7 snakes—Manchester, Iowa (gift).
- HELLMAYR, MRS. C. E., Chicago.
 1 red headed woodpecker—Chicago (gift).
- HELLMAYR, DR. C. E., Chicago.
 134 insects—Canada (gift).
- HIGINBOTHAM, BRUCE, Evanston, Illinois.
 1 pilot black snake—Culver, Indiana (gift).
- HILL, MRS. FREDERICK, Westmont, Illinois.
 1 spider—Westmont, Illinois (gift).
- HINE, ASHLEY, Chicago.
 6 mammals, 2 owls—Alberta, Canada (gift).
- HOFERER, M. J., St. Stephens, Wyoming.
 1 magpie—St. Stephens, Wyoming (gift).
- HOLLING, H. C., Chicago.
 1 box turtle—Indiana (gift).
- JOHNSEN, CHARLES H., Harvey, Illinois.
 1 Baltimore oriole nest—Harvey, Illinois (gift).
- KAEMPFER, EMIL, Sanchez, Dominican Republic.
 2 turtle eggs—Dominican Republic (gift).
- LILJEBLAD, E., Chicago.
 6 moths—Illinois (gift).
- LINCOLN PARK COMMISSION, Chicago.
 1 tayra, 2 squirrel monkeys—Pozuzo, Peru (gift).
 1 Montana grayling—Bozeman, Montana (gift).
 53 fishes—Illinois (gift).
 2 gars—Bellevue, Iowa (gift).
 229 aquarium fishes (gift).
 1 turtle—Kankakee River, Illinois (gift).
- LITTLE, LUTHER, Pasadena, California.
 2 bats (gift).
- LYON, W. I., Waukegan, Illinois.
 1 louse-fly—Waukegan, Illinois (gift).
- MACKINTOSH, L. J., Darjeeling, India.
 1 mammal, 7 birds, 1 grasshopper, 4 bugs, 42 butterflies, 41 moths—India (gift).
- MADDREN, A. G., North Chevy Chase, Maryland.
 1 rabbit—Bolivia (gift).
- MCCARTY, DR. WILLIAM H., Des Moines, Iowa.
 1 porcupine fish—California (gift).

- McCORMICK, CYRUS, Lake Forest, Illinois.
2 moths—Lake Forest, Illinois (gift).
- MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Massachusetts.
2 caimans—South America (exchange).
30 birds—West Indies and South America (exchange).
- MYERS, GEORGE S., Jersey City, New Jersey.
11 fishes—Various localities (exchange).
- NARBO, DR. S., Sandnes, Norway.
7 birds' eggs—Rot Island, Norway (gift).
- NASH, GUY, Wisconsin Rapids, Wisconsin.
1 bug, 1 beetle—Wisconsin Rapids, Wisconsin (gift).
- NATIONAL ASSOCIATION OF AUDUBON SOCIETIES, New York City.
105 bird plumes (gift).
- NATIONAL SOUTHEASTERN UNIVERSITY, Nanking, China.
1 salamander, 5 frogs—Nanking, China (gift).
- NORTON, MRS. G. B., Chicago.
1 ruby-throated hummingbird—Chicago (gift).
- ORTENBURGER, PROF. A. I., Norman, Oklahoma.
4 frogs—Norman, Oklahoma (gift).
- PARKER, J. GRAFTON, Chicago.
880 birds, 43 birds' nests and eggs—Chicago and other localities (gift).
- PERRY, ARMSTRONG, Chicago.
1 photograph of blue racer (gift).
- PINNEO, GEORGE N., Gary, Indiana.
1 prairie rattlesnake—Mineral Springs, Indiana (gift).
- PRAY, L. L., Homewood, Illinois.
1 red bat, 1 screech owl—Chicago (gift).
35 bird lice—Wauconda, Illinois (gift).
- PRINCE, S. FRED, Manhattan, Kansas.
1 ground skink, 1 wasp—Stone County, Missouri (gift).
- PSOTA, DR. F. J., Chicago.
1 fly—Caracas Valley, Venezuela (gift).
- RHEAD, LOUIS, Brooklyn, New York.
2 eastern brook pickerel—Long Island, New York (gift).
- RUDHMANN, Delhi, California.
2 sand crickets—Delhi, California (gift).
- RUECKERT, ARTHUR G., Chicago.
1 great-horned owl—Ringwood, Illinois (exchange).
2 brown bats—Waukegan, Illinois (gift).
1 water snake—Henry, Illinois (gift).
- SANBORN, COLIN C., Evanston, Illinois.
1 pine mouse, 1 tree frog—Highland Park, Illinois (gift).
5 birds—Lake County, Illinois (gift).
- SAN DIEGO SOCIETY OF NATURAL HISTORY, San Diego, California.
2 lizards, 2 Pacific rattlesnakes, 3 red rattlesnakes—San Diego County, California (exchange).
- SCHMIDT, KARL P., Homewood, Illinois.
1 swamp tree frog—Homewood, Illinois (gift).
- STEEN, E. B. and GRAVE, B. H., Crawfordsville, Indiana.
78 salamanders—Crawfordsville, Indiana (gift).
- STERN, LEON, Chicago.
4 turtles—Whitehall, Michigan (gift).
- TERRILL, W. A., Norway, Michigan.
1 hognose snake—Faithorn, Michigan (gift).
- TIMBERS, WILLIAM, Chicago.
3 cave crickets—Barren County, Kentucky (gift).
- TYLER, C. C., Eureka, Florida.
1 beetle—Marion County, Florida (gift).
8 tadpoles, 1 salamander, 1 lizard, 1 snake—Marion County, Florida (Gift).
- TYRRELL, W. B., Maywood, Illinois.
5 ticks, 2 beetles—Wisconsin and Illinois (gift).

- U. S. NATIONAL MUSEUM, Wash-
ington, D. C.
1 marsupial—Matchu Picchu, Peru
(exchange).
- WADDINGTON, MRS. A. H., West-
mount, Illinois.
10 hair worms—Westmount, Illinois
(gift).
- WALSH, PATRICK, Chicago.
1 red bat—Chicago (gift).
- WALTERS, L. L., Chicago.
17 frogs—Salamonia, Indiana (gift).
- WEED, A. C., Chicago.
25 insects—Northern Illinois (gift).
- WOLCOTT, A. B., Chicago.
1 louse-fly—Niles, Illinois (gift).
9 frogs, 6 snakes, 1 lizard, 175 in-
sects—Stone County, Missouri
(gift).

SECTION OF PHOTOGRAPHY

- BENNETT, MISS HELEN B., Chicago.
16 prints of Indian grave.
- CHALMERS, W. J., Chicago.
30 photographs—Egypt, Algeria
and Tunesia.
- FIELD MUSEUM OF NATURAL
HISTORY.
Made by Section:
9,602 prints, 1,518 negatives, 651
lantern slides.
Developed for Field Expeditions:
456 negatives.
47 moving picture films.
- FIELD, CAPTAIN MARSHALL, EX-
PEDITIONS.
To China:
25 negatives of actors' costumes.
To British Honduras:
325 negatives of natives, landscapes
and general views.
To Brazil:
525 negatives of natives, landscapes
and general views.
- HEPPERLEY, J. F., Omaha, Nebraska.
18 prints of Indian pictographs.
- HUNTINGTON LIBRARY AND ART
GALLERY.
2 photostat reproductions.
- JONES, ARTHUR B., MALAYAN
EXPEDITION.
1 moving picture reel.
- MCCREA, W. S., Chicago.
7 negatives of rock formations.
- PATHE REVIEW, New York City.
1 moving picture reel.
- RYERSON, MARTIN A., Chicago.
58 photographs of racial types of
Mexico.
27 photographs of racial types of
Korea.
49 photographs of racial types of
Melanesia.
10 photographs.
- WINTERNTZ, L., Fort Myers, Flor-
ida.
30 photographs of Seminole Indians.
17 prints of Seminole Indians.

THE LIBRARY

LIST OF DONORS AND EXCHANGES

(Accessions are made by exchange, unless otherwise designated)

AFRICA:

East Africa and Uganda Natural
History, Nairobi.
Geological Society, Johannesburg.
Institut d'Égypte, Cairo.
Ministry of Public Works, Cairo.
Natal Museum, Pietermaritzburg.
Natal Technical College, Durban.
Rhodesia Scientific Society, Bulawayo.
Royal Society of South Africa, Cape
Town.
Société de Géographie d'Alger.

Société d'Histoire Naturelle de l'Af-
rique du Nord, Algeria.
Société des Sciences Naturelles du
Maroc, Rabat.
South African Association for the
Advancement of Science, Cape
Town.
South African Department of Agri-
culture, Pretoria.
South African Museum, Cape Town.
Transvaal Museum, Pretoria.

ARGENTINA:

Ministerio de Agricultura, Buenos Aires.
 Museo de La Plata.
 Museo Nacional, Buenos Aires.
 Sociedad Científica Argentina, Buenos Aires.
 Sociedad Ornitológica del Plata, Buenos Aires.
 Universidad Nacional de La Plata, Buenos Aires.

AUSTRALIA:

Australian Museum, Sydney.
 Botanic Gardens and Government Domains, Sydney.
 Commonwealth of Australia, Melbourne.
 Department of Agriculture, Adelaide.
 Department of Agriculture, Sydney.
 Department of Agriculture, Wellington.
 Department of Mines, Brisbane.
 Department of Mines, Sydney.
 Field Naturalists' Club, Melbourne.
 Fish Commission of New South Wales, Sydney.
 Forestry Commission, Sydney (gift).
 Geological Survey of Western Australia, Perth.
 Linnean Society of New South Wales, Sydney.
 Melbourne University.
 National Herbarium, Melbourne.
 Ornithological Society of South Australia, Adelaide.
 Public Library, Museum and Art Gallery, Adelaide.
 Public Library, Museum and National Gallery of Victoria, Melbourne.
 Queensland Geological Survey, Brisbane.
 Queensland Museum, Brisbane.
 Royal Geographical Society of Australasia, Brisbane.
 Royal Society of New South Wales, Sydney.
 Royal Society of Queensland, Brisbane.
 Royal Society of South Australia, Adelaide.
 Royal Society of Tasmania, Hobart.
 Royal Society of Western Australia, Perth.
 Royal Zoological and Acclimatisation Society of Victoria, Melbourne.
 South Australian Museum, Adelaide.
 Technological Museum, Sydney.

AUSTRIA:

Naturhistorisches Museum, Vienna.
 Zoologisch-Botanische Gesellschaft, Vienna.
 Zoologisches Institut, Graz.

BELGIUM:

Académie Royale de Belgique, Brussels.
 Jardin Botanique de l'Etat, Brussels.
 Kruidkundig Genootschap Dodonea, Ghent.
 Nederlaudische Phytopathologische (Plantenziekten) Vereeniging, Ghent.
 Société de Botanique, Brussels.
 Société Royale d'Archéologie, Brussels.
 Université de Louvain.

BORNEO:

Sarawak Museum.

BRAZIL:

Academia Brasileira de Ciencias, Rio de Janeiro.
 Biblioteca Nacional, Rio de Janeiro.
 Escola Superior de Agricultura e Medicina, Veterinaria, Rio de Janeiro.
 Minister of Foreign Affairs of Brazil, Rio de Janeiro.
 Secretaria da Agricultura, Commercio e Obras Publicas, Sao Paulo.
 Servico Geologico e Mineralogica, Rio de Janeiro.

BRITISH GUIANA:

Board of Agriculture, Georgetown.
 Royal Agricultural and Commercial Society, Demerara.

CANADA:

Canadian Arctic Expedition, Ottawa (gift).
 Chief Game Guardian of Saskatchewan, Regina.
 Department of Agriculture, Ottawa.
 Department of Agriculture, Victoria.
 Department of Indian Affairs, Ottawa.
 Department of Mines, Ontario, Toronto.
 Department of Mines, Ottawa.
 Department of the Interior, Geological Survey, Ottawa.
 Entomological Society of Ontario, Toronto.
 Hamilton Association.
 Horticultural Societies, Toronto.
 McGill University, Montreal.
 Minister of Education, Ontario, Toronto.
 Nova Scotian Institute of Science, Halifax.
 Provincial Museum, Toronto.
 Provincial Museum, Victoria.
 Royal Canadian Institute, Toronto.
 Royal Society of Canada, Ottawa.
 Société de Géographie, Quebec.
 University of Toronto.

CEYLON:

Colombo Museum.

CHILE:

Ministry of Foreign Affairs, Valparaiso.

Museo de Etnologia y Antropologia, Santiago.

Museo Nacional de Chile, Santiago.

CHINA:

Botany and Forestry Department, Hong-Kong.

Geological Survey, Peking.

Royal Asiatic Society of North China, Shanghai.

Science Society of China, Shanghai (gift).

University of Nanking.

CZECHO-SLOVAKIA:

Deutscher Naturwissenschaftlich-Medizinischer Verein für Bohmen "Lotos", Prague.

Plant Physiological Laboratory, Prague (gift).

Societas Entomologica Bohemica, Prague.

DENMARK:

K. Bibliotek, Copenhagen.

K. Nordiske Oldskriftselskab, Copenhagen.

Naturhistorisk Forening, Copenhagen.

Royal Society of Northern Antiquaries, Copenhagen.

Société Botanique, Copenhagen.

ECUADOR:

Academia Nacional de Historia, Quito.

FEDERATED MALAY STATES:

Federated Malay States Museum, Kuala Lumpur.

Royal Asiatic Society, Malayan Branch, Singapore.

FIJI ISLANDS:

Fijian Society, Suva.

FINLAND:

Abo Akademi.

Societas pro Fauna et Flora Fennica, Helsingfors.

Suomen Museo, Helsingfors.

FRANCE:

Académie des Sciences, Paris.

École d'Anthropologie, Paris.

Faculté des Sciences, Marseille. ¶

Ministère de l'Instruction Publique, Paris (gift).

Musée Guimet, Paris.

Muséum National d'Histoire Naturelle, Paris.

LaNature, Paris.

Société d'Études Scientifiques, Angers.

Société d'Histoire Naturelle, Toulouse.

Société d'Horticulture, Paris.

Société de Géographie, Paris.

Société des Américanistes, Paris.

Société Linguistique, Paris.

Société Nationale d'Horticulture de France, Paris.

Université de Rennes.

GERMANY:

Bayerische Akademie der Wissenschaften, Munich.

Botanischer Garten und Botanisches Museum, Berlin.

Botanischer Verein der Provinz Brandenburg, Berlin.

Deutsche Dendrologische Gesellschaft, Bonn-Poppelsdorf.

Deutsche Gesellschaft für Anthropologie, Ethnologie und Urgeschichte, Berlin.

Deutsche Morgenländische Gesellschaft, Leipzig.

Deutscher Seefischerei Verein, Berlin.

Deutsches Entomologisches Institut, Berlin.

Geographische Gesellschaft, Hamburg.

Gesellschaft für Erdkunde, Berlin.

Hamburgische Universität.

Hessische Ludwigs-Universität Gießen.

K. Museum für Volkskunde, Berlin.

K. Preussische Akademie der Wissenschaften, Berlin.

K. Universitäts Bibliothek, Marburg.

K. Universitäts Bibliothek, Munich.

K. Zoologisches Anthropologisch-Ethnographisches Museum, Dresden.

K. Zoologisches Museum, Berlin.

Museum für Länder-und Völkerkunde, Stuttgart.

Museum für Völkerkunde, Hamburg.

Naturforschende Gesellschaft, Freiburg.

Naturhistorische Gesellschaft, Nuremberg.

Naturwissenschaftlicher Verein, Karlsruhe.

Naturwissenschaftlicher Verein für Schwaben und Neuburg, Augsburg.

Naturwissenschaftlicher Verein für Steiermark, Graz.

Ornithologische Gesellschaft in Bayern, Munich.

Rheinische Missions-Gesellschaft, Bremen.

Schlesische Gesellschaft für Vaterländische Cultur, Breslau.
 Senckenbergische Naturforschende Gesellschaft, Frankfurt a. M.
 Thüringischer Botanischer Verein, Weimar.
 Württembergische Gesellschaft zur Förderung der Wissenschaften, Tübingen.
 Zoologisches Museum, Berlin.
 Zoologisches Museum, Hamburg.

GREAT BRITAIN:

Ashmolean Museum, Oxford.
 Ashmolean Natural History Society, Oxford.
 Birmingham Natural History and Philosophical Society.
 Bristol Museum and Gallery.
 British Museum, London.
 British Museum (Natural History), London.
 Cambridge Antiquarian Society.
 Cambridge Philosophical Society.
 Cambridge University.
 Cardiff Naturalists' Society.
 Dove Marine Laboratory, Cullercoats.
 Dumfriesshire and Galloway Natural History and Antiquarian Society, Dumfries.
 Fisheries Board, Edinburgh.
 Geological Society, Edinburgh.
 Geological Society, Liverpool.
 Great Britain Geological Society, London.
 Horniman Museum and Library, London.
 Hull Municipal Museum.
 Imperial Bureau of Entomology, London.
 Japan Society of London.
 Imperial College of Science and Technology, London.
 Lancashire Sea Fisheries Laboratory, Liverpool.
 Linnean Society, London.
 Liverpool Biological Society.
 Manchester Field Naturalists' and Archaeologists' Society.
 Manchester Geographical Society.
 Manchester Literary and Philosophical Society.
 Manchester Museum.
 Marine Biological Association, Plymouth.
 Museum of Practical Geology, London.
 National Library of Wales, Aberystwyth.
 National Museum of Wales, Cardiff.
 Natural History and Philosophical Society, Brighton.
 Natural History Society, Glasgow.

Natural History Society of Northumberland, Durham and Newcastle-on-Tyne, Newcastle.
 Oriental Ceramic Society, London.
 Royal Anthropological Institute of Great Britain and Ireland, London.
 Royal Botanic Gardens, Edinburgh.
 Royal Botanic Gardens, Kew.
 Royal Colonial Institute, London.
 Royal Geographical Society, London.
 Royal Horticultural Society, London.
 Royal Society, London.
 Royal Society of Arts, London.
 Royal Society of Edinburgh.
 South London Entomological and Natural History Society, London.
 Tring Zoological Museum.
 Zoological Society of London.

HUNGARY:

Hungarian Institute of Ornithology, Budapest.
 Magyar Természettudományi Társulat, Budapest.

INDIA:

Anthropological Society, Bombay.
 Archaeological Survey, Allahabad.
 Archaeological Survey, Burma, Rangoon.
 Archaeological Survey, Calcutta.
 Archaeological Survey, Eastern Circle, Patna.
 Archaeological Survey, Frontier Circle, Peshawar.
 Archaeological Department, Madras.
 Archaeological Survey of Burma, Lahore.

MEXICO:

Instituto Geológico de Mexico.
 Museo Nacional de Arqueología, Historia y Etnografía, Mexico.
 Secretaria de Agricultura y Fomento, Dirección de Antropología, Mexico.
 Sociedad Científica "Antonio Alzate," Mexico.
 Sociedad Geológica Mexicana, Mexico.
 Universidad Nacional, Mexico.

NETHERLANDS:

Bataafsche Genootschap der Proefondervindelijke Wijsbegeerte, Rotterdam.
 Directie van den Landbouw, Hague.
 K. Academie van Wetenschappen, Amsterdam.
 K. Instituut voor de Taal-Land-en Volkenkunde van Nederlandsch Indie, Hague.
 K. Nederlandsch Aardrijkundig Genootschap, Amsterdam.
 Nederlandsche Dierkunde Vereeniging, Leiden.

- Nederlandsche Handel-Maatschappij, Amsterdam.
 Nederlandsche Phytopathologische Vereeniging, Wageningen.
 Rijks Ethnographisch Museum, Leiden.
 Rijks Hoogere Land-Tuin-en Boschbouwschool, Wageningen.
 Rijks Museum van Natuurlijke Historie, Leiden.
 Universiteit van Amsterdam, Bibliotheek.
- NEW ZEALAND:**
 Acclimatisation Society, Wellington.
 Auckland Institute and Museum, Wellington.
 Canterbury Museum, Christchurch.
 Department of Agriculture, Wellington.
 Department of Mines, Wellington.
 Dominion Museum, Wellington.
 Geological Survey, Wellington.
 New Zealand Board of Science and Art, Wellington.
- NORWAY:**
 Bergen Museum.
 Geologisk Museums Bibliothek, Kristiania.
 Norges Geologiske Undersokelse, Kristiania.
 Physiographiske Forening, Kristiania.
 Tromso Museum.
 Zoologiske Museum, Kristiania.
- PERU:**
 Cuerpo de Ingenieros de Minas, Lima.
 Sociedad Geografica, Lima.
 Universidad Mayor de San Marcos, Lima.
- POLAND:**
 Academy of Commerce, Warsaw.
 Bibliothèque de l'Ecole Supérieure de Commerce, Warsaw.
 Musei Polonici Historiae Naturales, Warsaw.
 Société Botanique de Pologne, Warsaw.
- PORTUGAL:**
 Biblioteca Nacional, Lisbon.
 Collegio de San Fiel, Braga.
 Instituto de Anatomia, Lisbon.
 Société Portugaise des Sciences Naturelles, Lisbon.
 Universidade de Lisboa.
 Asiatic Society of Bengal, Calcutta.
 Bihar and Orissa Research Society, Patna.
 Department of Agriculture, Bombay.
 Department of Agriculture, Madras.
 Department of Agriculture, Poona.
 Department of Agriculture, Pusa.
- Geological Survey, Calcutta.
 Government, Cinchona Plantation, Calcutta.
 Government of India, Calcutta.
 Government Museum, Madras.
 Indian Museum, Calcutta.
 Journal of Indian Botany, Madras.
 National Indian Association, Calcutta (gift).
 Nazim College, Archaeological Department, Hyderabad.
 Royal Botanic Garden, Calcutta.
 University of Calcutta.
 Zoological Survey of India, Calcutta.
- IRELAND:**
 Belfast Naturalists' Field Club.
 Department of Agriculture, Scientific Investigations, Dublin.
 Geological Survey, Dublin.
 Royal Irish Academy, Dublin.
 Royal Dublin Society.
- ITALY:**
 Istituto Botanica, Università di Pavia.
 Istituto Geografico de Agostini, Novara.
 Musei Zoologiae ed Anatomia Comparata, Turin.
 Museo Civico di Storia Naturale, Genoa.
 R. Accademia delle Scienze di Torino.
 R. Accademia Nazionale del Lincei, Rome.
 R. Orto Botanico Giardino Coloniale, Palermo.
 R. Scuola Superiore di Agricoltura, Portici.
 R. Società Geografica Italiana, Rome.
 Società dei Naturalisti, Naples.
 Società di Scienze Naturali ed Economiche, Florence.
 Società Italiana de Scienze Naturali, Milan.
 Società Romana di Antropologia, Rome.
 Società Toscana di Scienze Naturali, Pisa.
- JAPAN:**
 Anthropological Society of Tokyo.
 Geological Society, Tokyo.
 Government Research Institute, Taihoku, Formosa.
 Imperial University, Taihoku, Formosa.
 Imperial University of Tokyo, College of Science.
 Ornithological Society, Tokyo.
 Tokyo Botanical Society.
- JAVA:**
 Bataviaasch Genootschap van Kunsten en Wetenschappen, Batavia.

- Department of Agriculture, Buitenzorg.
 Encyclopaedisch Bureau, Weltevreden.
 Jardin Botanique, Weltevreden.
 Java Instituut, Weltevreden.
 K. Natuurkundige Vereeniging in Nederlandsch-Indie, Weltevreden.
- RUSSIA:**
 Académie Impériale des Sciences, Leningrad.
 Botanical Garden, Leningrad.
 Société des Naturalistes de Petrograd.
 Universität Dorpatensis.
- SPAIN:**
 Colegio de Pasaje, La Guardia.
 Institució Catalana d'Historia Natural, Barcelona.
 Instituto General y Tecnico, Valencia.
 Instituto Nacional de Ciencias, Madrid.
 Junta de Ciencias Naturals, Barcelona.
 Junta para Ampliación de Estudios e Investigaciones Científicas, Madrid.
 R. Academia de Ciencias y Arte, Barcelona.
 R. Academia de Ciencias Exactas, Físicas y Naturales, Madrid.
 Sociedad Española de Historia Natural, Madrid.
- SWEDEN:**
 K. Biblioteket, Stockholm.
 K. Svenska Vetenskapsakademien, Stockholm.
 K. Vitterhets Historie och Antikvitets Akademien, Stockholm.
 Lunds Universitet.
 Svenska Sällskapet för Antropologi och Geografi, Stockholm.
 Universitet Biblioteket, Upsala.
- SWITZERLAND:**
 Botanischer Garten, Bern.
 Botanisches Museum, Zürich.
 Conservatoire et Jardin Botaniques, Geneva.
 Geographisch-Ethnographische Gesellschaft, Zürich.
 Historisches Museum, Bern.
 Naturforschende Gesellschaft, Basel.
 Naturforschende Gesellschaft, Bern.
 Naturforschende Gesellschaft, Zürich.
 Musées d'Histoire Naturelle, Lausanne.
 Ostschweizerische Geograph-Commercielle Gesellschaft, St. Gallen.
 Société de Physique et d'Histoire Naturelle, Geneva.
- Société Entomologique, Bern.
 Société Fribourgeoise des Sciences Naturelles, Fribourg.
 Société Helvétique des Sciences Naturelles, Bern.
 Société Neuchateloise de Géographie, Neuchatel.
 Universität, Bern.
 Universität, Botanisches Museum, Zürich.
- VENEZUELA:**
 Cultura Venezolana, Caracas.
- WEST INDIES:**
 Academia Nacional de Artes y Letras, Havana.
 Agricultural Experiment Station, Porto Rico.
 Biblioteca Nacional, Havana.
 Department of Agriculture of Jamaica, Kingston.
 Imperial Department of Agriculture, Barbados.
 Insular Experiment Station, Rio Piedras.
 Liceo de Costa Rica, San José.
 Trinidad and Tobago Department of Agriculture, Port of Spain.
 Universidad de Habana.
- Ahl, Ernst, Berlin.
 Altobelle, G., (gift).
 Benson, Rex, London (gift).
 Brandstetter, Renward, Lucerne (gift).
 Carpenter, G. H., Dublin.
 Cook, Melville T., Pio Piedras.
 Dearness, John, London.
 Dunod, H., Paris.
 Faura y Sans, M., Tortosa.
 Forberg, Elof, Stockholm.
 Gamble, J. S., Madras.
 Gennep, Arnold van, Paris.
 Gleerup, C. W. K., Lund.
 Greslebin, Hector, Buenos Aires (gift).
 Hammerton, J. A., London (gift).
 Helbin, Hugo, Frankfurt a. M. (gift).
 Herrera, Moises, Mexico.
 Herter, W., Berlin (gift).
 Huard, V. A., Quebec.
 Kindle, E. M., Ottawa (gift).
 Kishenouye, K., Tokyo (gift).
 Lavanden, L., Paris (gift).
 Lehmann, Walter., Berlin (gift).
 Loo, C. T., Paris (gift).
 MacKenzie, William C., Melbourne.
 MacRitchie, David., Edinburgh.
 Marelli, Carlos A., Buenos Aires (gift).
 Mertens, Robert, Frankfurt a. M.
 Miller, David, Wellington (gift).
 Nordenskiöld, Erland, Göteborg (gift).
 Porter, Carlos E., Santiago de Chile.

Richter, Rudolf, Frankfurt a. M.
 Rinne, Friedrich, Leipzig (gift).
 Rivet, P., Paris.
 Roig, Mario Sanchez, Havana (gift).
 Roule, Louis, Paris (gift).
 Sapir, E., Ottawa.
 Schinz, Hans, Zürich.
 Schlaginhaufen, Otto, Zürich.
 Schmidt, W., Wien.
 Shirogoroff, S. M., Leningrad (gift).
 Tobler, Leipzig.
 Watson, J. Henry, Manchester (gift).
 Welch, M. B., Sydney.

ALABAMA:

Anthropological Society, Montgomery.

CALIFORNIA:

Agricultural Experiment Station,
 Berkeley.
 Board of Fish and Game Commission-
 ers, Sacramento.
 California Academy of Sciences, San
 Francisco.
 Citrus Experiment Station, Riverside.
 Cooper Ornithological Club, Holly-
 wood.
 Natural History Museum, San Diego
 (gift).
 Pomona College, Claremont.
 San Diego Society of Natural History.
 Scripps Institution of Biological Re-
 search, La Jolla.
 Southern Academy of Sciences, Los
 Angeles.
 Southwest Museum, Los Angeles.
 Stanford University.
 State Mining Bureau, Sacramento.
 University of California, Berkeley.

COLORADO:

Bureau of Mines, Denver.
 Colorado College, Colorado Springs.
 Colorado Museum of Natural History,
 Denver.
 Colorado Scientific Society, Denver.
 Colorado University, Boulder.
 • State Historical and Natural History
 Society, Denver.

CONNECTICUT:

Agricultural Experiment Station, New
 Haven.
 American Oriental Society, New
 Haven.
 Connecticut Academy of Arts and
 Sciences, New Haven.
 Hartford Public Library.
 Marsh Botanical Garden, New Haven.
 Osborn Botanical Laboratory, New
 Haven.
 Peabody Museum, New Haven.
 State Geological and Natural History
 Survey, Hartford.

Storrs Agricultural Experiment Sta-
 tion.
 Wesleyan University, Middletown.
 Yale University, New Haven.

FLORIDA:

State Geological Survey, Tallahassee.

HAWAII:

Agricultural Experiment Station,
 Honolulu.
 Bernice Pauahi Bishop Museum, Hono-
 lulu.
 Board of Commissioners of Agricul-
 ture and Forestry, Honolulu.
 Hawaiian Entomological Society,
 Honolulu.
 Hawaiian Sugar Planters' Association,
 Honolulu.

IDAHO:

Mining Industry, Boise.
 State Historical Society of Idaho,
 Boise.
 University of Idaho, Moscow.

ILLINOIS:

Agricultural Experiment Station, Ur-
 bana.
 Art Institute of Chicago.
 Audubon Society, Chicago.
 Board of Education, Chicago.
 Chicago Historical Society.
 Chicago Public Library.
 Division of Natural History Survey,
 Urbana.
 Hardwood Record, Chicago (gift).
 John Crerar Library, Chicago.
 Lake Forest College.
 Newberry Library, Chicago.
 Northwestern University, Evanston.
 Open Court Publishing Company, Chi-
 cago.
 State Academy of Science, Springfield.
 State Board of Agriculture, Springfield.
 State Geological Survey, Springfield.
 State Historical Library, Springfield.
 State Water Survey, Springfield.
 Sweet, Wallach and Company, Chi-
 cago (gift).
 University of Chicago.
 University of Illinois, Urbana.

INDIANA:

Academy of Science, Indianapolis.
 Department of Conservation, Indian-
 apolis.
 Indiana University, Bloomington.
 John Herron Art Institute, Indian-
 apolis.
 Legislative Reference Bureau, Indian-
 apolis.
 Purdue University, Lafayette.
 University of Notre Dame.

UNIVERSITY OF ILLINOIS

CHAMPAIGN, ILL.



IMPERIAL STATE ROBE OF THE MANCHU DYNASTY, OF YELLOW SILK WITH
DESIGNS WOVEN IN. CHINA, K' IEN-LUNG PERIOD (1736-95).

CAPTAIN MARSHALL FIELD EXPEDITION TO CHINA, 1923.

About one-twelfth actual size.

IOWA:

Academy of Science, Des Moines.
 Horticultural Society, Des Moines.
 Iowa Geological Survey, Des Moines.
 Iowa State College, Ames.
 University of Iowa, Iowa City.

KANSAS:

Academy of Science, Topeka.
 Agricultural Experiment Station,
 Manhattan.
 State Board of Agriculture, Topeka.
 State Geological Survey, Lawrence.
 State Historical Society, Topeka.
 University of Kansas, Lawrence.

KENTUCKY:

Academy of Science, Frankfort.
 Agricultural Experiment Station,
 Louisville.
 Kentucky Geological Survey, Frank-
 fort.

LOUISIANA:

Agricultural Experiment Station, Bat-
 on Rouge.
 Department of Conservation, New
 Orleans.
 State Museum, New Orleans.

MAINE:

Agricultural Experiment Station,
 Orono.
 Bowdoin College, Brunswick.

MARYLAND:

Agricultural Experiment Station,
 College Park.
 Johns Hopkins University, Baltimore.

MASSACHUSETTS:

Agricultural Experiment Station,
 Amherst.
 American Academy of Arts and Sci-
 ences, Boston.
 American Antiquarian Society, Wor-
 cester.
 Boston Public Library.
 Boston Society of Natural History.
 Children's Museum of Boston, Jama-
 ica Plain.
 Harvard College, Museum of Compar-
 ative Zoology, Cambridge.
 Harvard University. Arnold Arbor-
 etum, Jamaica Plain.
 Harvard University. Gray Herbarium,
 Cambridge.
 Massachusetts Horticultural Society,
 Boston.
 Museum of Fine Arts, Boston.
 New Bedford Free Public Library.
 Peabody Institute.
 Peabody Museum, Cambridge.
 Peabody Museum, Salem.

Phillips Academy, Andover.

Salem Public Library.
 Smith College, Northampton.
 Springfield City Library Association.
 Springfield Natural History Museum.
 Tufts College.
 Williams College, Williamstown.

MICHIGAN:

Agricultural Experiment Station,
 Agricultural College.
 Chamberlain Memorial Museum,
 Three Oaks.
 Department of Conservation. Geo-
 logical Survey Division, Lansing.
 Detroit Institute of Art.
 Geological and Natural History Sur-
 vey, Lansing.
 Grand Rapids Public Library.
 Michigan Academy of Science, Ann
 Arbor.
 Michigan College of Mines, Houghton.
 Michigan State Library, Lansing.
 State Board of Agriculture, Lansing.
 State Board of Library Commissions,
 Lansing.
 University of Michigan, Ann Arbor.

MINNESOTA:

Agricultural Experiment Station,
 University Farm.
 Minneapolis Institute of Arts.
 Minnesota Historical Society, Saint
 Paul.
 Saint Paul Institute.
 State Entomologist, University Farm.
 University of Minnesota, Minneapolis.

MISSISSIPPI:

Agricultural Experiment Station,
 Agricultural College.
 Mississippi State Geological Survey,
 Jackson.

MISSOURI:

Agricultural Experiment Station,
 Columbia.
 Bureau of Geology and Mines, Rolla.
 City Art Museum, Saint Louis.
 Missouri Botanic Garden, Saint Louis.
 Missouri Historical Society, Columbia.
 Saint Louis Academy of Science.
 Saint Louis Public Library.
 Saint Louis University.
 University of Missouri. School of
 Mines, Rolla.
 Washington University, Saint Louis.

MONTANA:

State Board of Horticulture, Missoula.
 University of Montana, Missoula.

NEBRASKA:

University of Nebraska, Lincoln.

NEVADA:

Agricultural Experiment Station,
Reno.

NEW JERSEY:

Agricultural Experiment Station,
Trenton.
Department of Conservation and De-
velopment, Trenton.
Newark Museums Association.
Princeton University.

NEW MEXICO:

Historical Society, Santa Fe.
New Mexico Museum, Santa Fe.

NEW YORK:

Agricultural Experiment Station,
Geneva.
American Geographical Society, New
York.
American Museum of Natural History,
New York.
Asia Publishing Company, New York.
Brooklyn Botanic Garden.
Brooklyn Institute of Arts and Sci-
ences.
Buffalo Society of Natural Sciences.
Carnegie Foundation for the Advance-
ment of Teaching, New York (gift).
Cooper Union for the Advancement of
Science and Art, New York.
Cornell University, Ithaca.
Forest and Stream Publishing Com-
pany, New York.
Inter-American Magazine, New York
(gift).
Japan Society, New York.
Metropolitan Museum of Art, New
York.
Museum of the American Indian, New
York.
New York Academy of Sciences, New
York.
New York Botanical Garden, New
York.
New York Historical Society, New
York.
Pratt Institute Free Library, New
York.
Public Library, New York.
Rochester Academy of Science.
Rockefeller Foundation, New York.
State College of Forestry, Syracuse.
State Library, Albany.
State Museum, Albany.
Staten Island Institute of Arts and
Sciences, New York.
Stone Publishing Company, New York.
Syracuse University.
University of the State of New York,
Albany.

Vassar College, Poughkeepsie.
Zoological Society, New York.

NORTH CAROLINA:

Elisha Mitchell Scientific Society,
Chapel Hill.

NORTH DAKOTA:

Historical Society, Grand Forks.
University of North Dakota, Univer-
sity.

OHIO:

Agricultural Experiment Station,
Wooster.
Cincinnati Museum Association.
Cleveland Museum of Art.
Cleveland Museum of Natural His-
tory.
Cleveland Public Library.
Denison University, Granville.
Geological Survey, Columbus.
Ohio Academy of Science, Columbus.
State Archaeological and Historical So-
ciety, Columbus.
State University, Columbus.
University of Cincinnati.
Wilson Ornithological Club, Oberlin.

OKLAHOMA:

University of Oklahoma, Norman.

OREGON:

Agricultural Experiment Station,
Corvallis.
University of Oregon, Eugene.

PENNSYLVANIA:

American Philosophical Society, Phil-
adelphia.
Association of Engineering Societies,
Philadelphia.
Bryn Mawr College.
Bureau of Topographic and Geological
Survey, Harrisburg.
Carnegie Institute, Pittsburgh.
Carnegie Library, Pittsburgh.
Carnegie Museum, Pittsburgh.
Dropsie College, Philadelphia.
Engineers' Society of Western Penn-
sylvania, Pittsburgh.
Franklin Institute, Philadelphia.
Numismatic and Antiquarian Society,
Philadelphia.
Pennsylvania Museum and School of
Industrial Art, Philadelphia.
Philadelphia Academy of Natural Sci-
ences.
Philadelphia College of Pharmacy.
Philadelphia Commercial Museum.
Sullivant Moss Society, Pittsburgh.
University of Pennsylvania, Philadel-
phia.

- University of Pennsylvania, Museum, Philadelphia.
Wagner Free Institute of Science, Philadelphia.
- PHILIPPINE ISLANDS:**
Bureau of Education, Manila.
Department of Agriculture, Manila.
Department of Agriculture and Natural Resources, Manila.
Department of Interior, Bureau of Science, Manila.
- RHODE ISLAND:**
Park Museum, Providence.
- SOUTH CAROLINA:**
Charleston Museum.
- SOUTH DAKOTA:**
Agricultural Experiment Station, Brookings.
Geological and Natural History Survey, Vermilion.
- TENNESSEE:**
Department of Education, Division of Geology, Nashville.
- TEXAS:**
Agricultural Experiment Station, College Station.
Scientific Society of San Antonio.
University of Texas, Austin.
- VERMONT:**
Agricultural Experiment Station, Burlington.
State Forester, Montpelier.
State Geological Survey, Burlington.
- VIRGINIA:**
State Library, Richmond.
University of Virginia, Charlottesville.
Virginia Geological Survey, Charlottesville.
- WASHINGTON:**
Department of Conservation and Development, Division of Geology, Olympia.
Washington Geological Survey, Pullman.
Washington University, Seattle.
Washington University, Historical Society, Seattle.
- WASHINGTON, D. C.:**
American Association for the Advancement of Science (gift).
American Mining Congress.
Carnegie Institution of Washington (gift).
Daily Science News Bulletin.
Library of Congress.
- National Academy of Sciences.
National Education Association (gift).
National Research Council.
National Zoological Park.
Pan American Union.
Peruvian Arbitration Commission.
Smithsonian Institution.
United States Government.
United States National Museum.
- WEST VIRGINIA:**
State Department of Agriculture, Charleston.
West Virginia University Morgantown.
- WISCONSIN:**
Agricultural Experiment Station, Madison.
Beloit College.
Geological and Natural History Survey, Madison.
Public Museum of Milwaukee.
State Horticultural Society, Madison.
University of Wisconsin, Madison.
- Arthur, J. C., Lafayette.
Ayer, Edward E., Chicago (gift).
Baker, Frank C., Urbana.
Ballard, James F., Saint Louis (gift).
Bishop, Sherman C., Albany (gift).
Blatchley, W. S., Indianapolis.
Brandegee, Townshend S., Berkeley.
Canfield, Frederick A., Dover (gift).
Casey, Thomas L., Washington (gift).
Cassius, S. E., Salem (gift).
Cattell, J. McKeen, New York (gift).
Cockerell, T. D. A., Boulder.
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Davis, William T., New Brighton (gift).
DeLong, Dwight M., Columbus (gift).
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Evans, Alexander W., New Haven.
Farwell, Oliver A., Detroit.
Fassett, Norman C., New Haven (gift).
Field, Stanley, Chicago (gift).
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- McNair, James B., Chicago (gift).
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Osborn, Herbert, Columbus.
Osgood, Wilfred H., Chicago (gift).
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Record, Samuel J., New Haven (gift).
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- Robb, Mrs. G. W., Borden (gift).
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Saunders, Charles F., Pasadena.
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Treadwell, A. L., Poughkeepsie (gift).
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DEPARTMENT OF STATE

WILLIAM H. HINRICHSEN, *Secretary of State.*

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached.

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSEN,
Secretary of State.

[SEAL]

TO HON. WILLIAM H. HINRICHSEN,

SECRETARY OF STATE:

SIR:

We, the undersigned citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to-wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."
2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archæology, Science and History.
3. The management of the aforesaid museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.
4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:

Edward E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(Signed),

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McCurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaatt, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimmons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, George M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS }
COOK COUNTY } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

[SEAL]

NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 8th day of November, 1905, the name of the FIELD COLUMBIAN MUSEUM was changed to FIELD MUSEUM OF NATURAL HISTORY. A certificate to this effect was filed November 10, 1905, in the office of the Secretary of State for Illinois.

CHANGE IN ARTICLE 3.

Pursuant to a resolution at a meeting of the corporate members held the 10th day of May, 1920, the management of FIELD MUSEUM OF NATURAL HISTORY shall be invested in a Board of TWENTY-ONE (21) TRUSTEES, who shall be elected in such manner and for such time and term of office as may be provided for by the By-Laws. A certificate to this effect was filed May 21, 1920, in the office of the Secretary of State for Illinois.

AMENDED BY-LAWS

JANUARY 1925

ARTICLE I.

MEMBERS

SECTION 1. Members shall be of ten classes, Corporate Members, Honorary Members, Patrons, Benefactors, Fellows, Life Members, Non-Resident Life Members, Associate Members, Sustaining Members, and Annual Members.

SECTION 2. The Corporate Members shall consist of the persons named in the articles of incorporation, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such person named in the articles of incorporation shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as Corporate Members shall, within ninety days of their election, pay into the treasury the sum of twenty (\$20.00) dollars or more. Corporate Members becoming Life Members, Patrons or Honorary Members shall be exempt from dues. Annual meetings of said Corporate Members shall be held at the same place and on the same day that the annual meeting of the Board of Trustees is held.

SECTION 3. Honorary Members shall be chosen by the Board from among persons who have rendered eminent service to science, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues.

SECTION 4. Patrons shall be chosen by the Board upon recommendation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as Patrons, shall also be Corporate Members.

SECTION 5. Any person contributing or devising the sum of One Hundred Thousand Dollars (\$100,000.00) in cash, or securities, or property to the funds of the Museum, may be elected a Benefactor of the Museum.

SECTION 6. Any person contributing the sum of Five Thousand Dollars (\$5,000.00) in cash or securities to the funds of the Museum, may be elected a Fellow of the Museum, who after being so elected shall have the right in perpetuity to appoint the successor in said Fellowship.

SECTION 7. Any person paying into the treasury the sum of Five Hundred Dollars (\$500.00), at any one time, shall, upon the unanimous vote of the Board, become a Life Member. Life Members shall be exempt from all dues, and shall enjoy all the privileges and courtesies of the Museum that are accorded to members of the Board of Trustees. Any person residing fifty miles or more from the city of Chicago, paying into the treasury the sum of One Hundred Dollars (\$100.00) at any one time, shall, upon the unanimous vote of the Board, become a Non-Resident Life Member. Non-Resident Life Members shall be exempt from all dues, and shall enjoy all the privileges and courtesies of the Museum that are accorded to members of the Board of Trustees.

SECTION 8. Any person paying into the treasury of the Museum the sum of one hundred (\$100.00) dollars, at any one time, shall upon the unanimous

vote of the Board, become an Associate Member. Associate Members shall be entitled to: tickets admitting member and members of family, including non-resident home guests; all publications of the Museum, if so desired; reserved seats for all lectures and entertainments under the auspices of the Museum, provided reservation is requested in advance; and admission of holder of membership and accompanying party to all special exhibits and Museum functions day or evening.

SECTION 9. Sustaining Member shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of twenty-five (\$25.00) dollars, payable within thirty days after notice of election and within thirty days after each recurring annual date. This Sustaining Membership entitles the member to free admission for the member and family to Museum on any day and allows 25 admission coupons, which may be used by any one, the Annual Report and such other Museum documents or publications as may be requested in writing. When a Sustaining Member has paid the annual fee of \$25.00 for six years, such member shall be entitled to become an Associate Member.

SECTION 10. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten (\$10.00) dollars, payable within thirty days after each recurring annual date. An Annual Membership shall entitle the member to a card of admission for the member and family during all hours when the Museum is open to the public, and free admission for the member and family to all Museum lectures or entertainments. This membership will also entitle the holder to the courtesies of the membership privileges of every Museum of note in the United States and Canada, so long as the existing system of co-operative interchange of membership tickets shall be maintained, including tickets for any lectures given under the auspices of any of the Museums during a visit to the cities in which the co-operative museums are located.

SECTION 11. All membership fees, excepting Sustaining and Annual, shall hereafter be applied to a permanent Membership Endowment Fund, the interest only of which shall be applied for the use of the Museum as the Board of Trustees may order.

ARTICLE II.

BOARD OF TRUSTEES

SECTION 1. The Board of Trustees shall consist of twenty-one members. The respective members of the Board now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled at a regular meeting of the Board, upon the nomination of the Executive Committee made at a preceding regular meeting of the Board, by a majority vote of the members of the Board present.

SECTION 2. Regular meetings of the Board shall be held on the third Monday of each month. Special meetings may be called at any time by the President, and shall be called by the Secretary upon the written request of three Trustees. Five Trustees shall constitute a quorum, except for the election of officers or the adoption of the Annual Budget, when seven Trustees shall be required, but meetings may be adjourned by any less number from day to day, or to a day fixed, previous to the next regular meeting.

SECTION 3. Reasonable written notice, designating the time and place of holding meetings, shall be given by the Secretary.

ARTICLE III.

HONORARY TRUSTEES

SECTION 1. As a mark of respect, and in appreciation of services performed for the Institution, those Trustees who by reason of inability, on account of



COMPLETE SKELETON OF FOSSIL MAMMAL (*Interatherium*).

SANTA CRUZ BEDS, PATAGONIA.

CAPTAIN MARSHALL FIELD PALEONTOLOGICAL EXPEDITION TO ARGENTINA, 1923.

Two-fifths actual size.

UNIVERSITY OF ILLINOIS

change of residence, or for other cause or from indisposition to serve longer in such capacity shall resign their place upon the Board, may be elected, by a majority of those present at any regular meeting of the Board, an Honorary Trustee for life. Such Honorary Trustee will receive notice of all meetings of the Board of Trustees, whether regular or special, and will be expected to be present at all such meetings and participate in the deliberations thereof, but an Honorary Trustee shall not have the right to vote.

ARTICLE IV.

OFFICERS

SECTION 1. The officers shall be a President, a First Vice-President, a Second Vice-President, a Third Vice-President, a Secretary, an Assistant Secretary and a Treasurer. They shall be chosen by ballot by the Board of Trustees, a majority of those present and voting being necessary to elect. The President, the First Vice-President, the Second Vice-President, and the Third Vice-President shall be chosen from among the members of the Board of Trustees. The meeting for the election of officers shall be held on the third Monday of January of each year, and shall be called the Annual Meeting.

SECTION 2. The officers shall hold office for one year, or until their successors are elected and qualified, but any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SECTION 3. The officers shall perform such duties as ordinarily appertain to their respective offices, and such as shall be prescribed by the By-Laws, or designated from time to time by the Board of Trustees.

ARTICLE V.

THE TREASURER

SECTION 1. The Treasurer shall be custodian of the funds of the Corporation except as hereinafter provided. He shall make disbursements only upon warrants drawn by the Director and countersigned by the President. In the absence or inability of the Director, warrants may be signed by the Chairman of the Finance Committee, and in the absence or inability of the President, may be countersigned by one of the Vice-Presidents, or any member of the Finance Committee.

SECTION 2. The securities and muniments of title belonging to the corporation shall be placed in the custody of some Trust Company of Chicago to be designated by the Board of Trustees, which Trust Company shall collect the income and principal of said securities as the same become due, and pay same to the Treasurer, except as hereinafter provided. Said Trust Company shall allow access to and deliver any or all securities or muniments of title to the joint order of the following officers, namely The President or one of the Vice-Presidents, jointly with the Chairman, or one of the Vice-Chairmen, of the Finance Committee of the Museum.

SECTION 3. The Treasurer shall give bond in such amount, and with such sureties as shall be approved by the Board of Trustees.

SECTION 4. The Harris Trust & Savings Bank of Chicago shall be Custodian of "The N. W. Harris Public School Extension of Field Museum" fund. The bank shall make disbursements only upon warrants drawn by the Director and countersigned by the President. In the absence or inability of the Director, warrants may be signed by the Chairman of the Finance Committee, and in the absence or inability of the President, may be countersigned by one of the Vice-Presidents, or any member of the Finance Committee.

ARTICLE VI.

THE DIRECTOR

SECTION 1. The Board of Trustees shall elect a Director of the Museum, who shall remain in office until his successor shall be elected. He shall have immediate charge and supervision of the Museum, and shall control the operations of the Institution, subject to the authority of the Board of Trustees and its Committees. The Director shall be the official medium of communication between the Board, or its Committees, and the scientific staff and maintenance force.

SECTION 2. There shall be four scientific departments of the Museum—Anthropology, Botany, Geology and Zoölogy; each under the charge of a Curator, subject to the authority of the Director. The Curators shall be appointed by the Board upon the recommendation of the Director, and shall serve during the pleasure of the Board. Subordinate staff officers in the scientific departments shall be appointed and removed by the Director upon the recommendation of the Curators of the respective Departments. The Director shall have authority to employ and remove all other employees of the Museum.

SECTION 3. The Director shall make report to the Board at each regular meeting, recounting the operations of the Museum for the previous month. At the Annual Meeting, the Director shall make an Annual Report, reviewing the work for the previous year, which Annual Report shall be published in pamphlet form for the information of the Trustees and Members, and for free distribution in such number as the Board may direct.

ARTICLE VII.

AUDITOR

SECTION 1. The Board shall appoint an Auditor, who shall hold his office during the pleasure of the Board. He shall keep proper books of account, setting forth the financial condition and transactions of the Corporation, and of the Museum, and report thereon at each regular meeting, and at such other times as may be required by the Board. He shall certify to the correctness of all bills rendered for the expenditure of the money of the Corporation.

ARTICLE VIII.

COMMITTEES

SECTION 1. There shall be five Committees, as follows: Finance, Building, Auditing, Pension and Executive.

SECTION 2. The Finance Committee shall consist of five members, the Auditing and Pension Committees shall each consist of three members, and the Building Committee shall consist of five members. All members of these four Committees shall be elected by ballot by the Board at the Annual Meeting, and shall hold office for one year, and until their successors are elected and qualified. In electing the members of these Committees, the Board shall designate the Chairman and Vice-Chairman by the order in which the members are named in the respective Committee; the first member named shall be Chairman, the second named the Vice-Chairman, and the third named, Second Vice-chairman, succession to the Chairmanship being in this order in the event of the absence or disability of the Chairman.

SECTION 3. The Executive Committee shall consist of the President of the Board, the Chairman of the Finance Committee, the Chairman of the Building Committee, the Chairman of the Auditing Committee, the Chairman of the Pension Committee, and three other members of the Board to be elected by ballot at the Annual Meeting.

SECTION 4. Four members shall constitute a quorum of the Executive Committee, and in all standing Committees two members shall constitute a quorum. In the event that, owing to the absence or inability of members, a quorum of the regularly elected members cannot be present at any meeting of any Committee, then the Chairman thereof, or his successor, as herein provided, may summon any members of the Board of Trustees to act in place of the absentee.

SECTION 5. The Finance Committee shall have supervision of investing the endowment and other permanent funds of the Corporation, and the care of such real estate as may become its property. It shall have authority to invest, sell, and reinvest funds, subject to the approval of the Board.

SECTION 6. The Building Committee shall have supervision of the construction, reconstruction, and extension of any and all buildings used for Museum purposes.

SECTION 7. The Executive Committee shall be called together from time to time as the Chairman may consider necessary, or as he may be requested to do by three members of the Committee, to act upon such matters affecting the administration of the Museum as cannot await consideration at the Regular Monthly Meetings of the Board of Trustees. It shall, before the beginning of each fiscal year, prepare and submit to the Board an itemized Budget, setting forth the probable receipts from all sources for the ensuing year, and make recommendations as to the expenditures which should be made for routine maintenance and fixed charges. Upon the adoption of the Budget by the Board, the expenditures as stated are authorized.

SECTION 8. The Auditing Committee shall have supervision over all accounting and bookkeeping, and full control of the financial records. It shall cause the same, once each year, or oftener, to be examined by an expert individual or firm, and shall transmit the report of such expert individual or firm to the Board at the next ensuing regular meeting after such examination shall have taken place.

SECTION 9. The Pension Committee shall determine by such means and processes as shall be established by the Board of Trustees to whom and in what amount the Pension Fund shall be distributed. These determinations or findings shall be subject to the approval of the Board of Trustees.

SECTION 10. The Chairman of each Committee shall report the acts and proceedings thereof at the next ensuing regular meeting of the Board.

SECTION 11. The President shall be ex-officio a member of all Committees and Chairman of the Executive Committee. Vacancies occurring in any Committee may be filled by ballot at any regular meeting of the Board.

ARTICLE IX.

NOMINATING COMMITTEE

SECTION 1. At the November meeting of the Board each year, a Nominating Committee of three shall be chosen by lot. Said Committee shall make nominations for membership of the Finance Committee, the Building Committee, the Auditing Committee, and the Pension Committee, and for three members of the Executive Committee, from among the Trustees, to be submitted at the ensuing December meeting and voted upon at the following Annual Meeting in January.

ARTICLE X.

SECTION 1. Whenever the word "Museum" is employed in the By-Laws of the Corporation, it shall be taken to mean the building in which the Museum

as an Institution is located and operated, the material exhibited, the material in study collections, or in storage, furniture, fixtures, cases, tools, records, books, and all appurtenances of the Institution and the workings, researches, installations, expenditures, field work, laboratories, library, publications, lecture courses, and all scientific and maintenance activities.

SECTION 2. These By-Laws may be amended at any regular meeting of the Board of Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at a preceding regular meeting.

HONORARY MEMBERS

AYER, EDWARD E.	GRAHAM, ERNEST R.
AYER, MRS. EDWARD E.	HARRIS, ALBERT W.
BLACKSTONE, MRS. T. B.	JONES, ARTHUR B.
CHALMERS, WILLIAM J.	McCORMICK, STANLEY
CRANE, CHARLES R.	RYERSON, MARTIN A.
FIELD, MARSHALL	SIMPSON, JAMES
FIELD, STANLEY	SPRAGUE, ALBERT A.

PATRONS

ARMOUR, ALLISON V.	KENNEDY, VERNON SHAW
BUTLER, EDWARD B.	KUNZ, GEORGE F.
COLLINS, ALFRED M.	MARKHAM, CHARLES H.
CUMMINGS, MRS. ROBERT F.	PAYNE, JOHN BARTON
DAY, LEE GARNETT	PROBST, EDWARD
KELLEY, WILLIAM V.	SARGENT, HOMER E.
WHITE, HOWARD J.	

DECEASED 1924

ANDERSON, PEIRCE	MANIERRE, GEORGE
HUTCHINSON, CHARLES L.	SMITH, WILLARD A.

CORPORATE MEMBERS

- | | |
|--------------------------|----------------------|
| ALDIS, OWEN F. | HARRIS, ALBERT W. |
| ARMOUR, ALLISON V. | JONES, ARTHUR B. |
| AYER, EDWARD E. | KEEP, CHAUNCEY |
| BLAIR, WATSON F. | KELLEY, WILLIAM V. |
| BORDEN, JOHN | KENNEDY, VERNON SHAW |
| BUTLER, EDWARD B. | KUNZ, GEORGE F. |
| BYRAM, HARRY E. | McCORMICK, CYRUS H. |
| CHALMERS, W. J. | MARKHAM, CHARLES H. |
| CHATFIELD-TAYLOR, H. C. | MITCHELL, JOHN J. |
| COLLINS, ALFRED M. | PAYNE, JOHN BARTON |
| CRANE, JR., RICHARD T. | PORTER, GEORGE F. |
| CUMMINGS, MRS. ROBERT F. | PROBST, EDWARD |
| DAVIES, D. C. | RYERSON, MARTIN A. |
| DAY, LEE GARNETT | SARGENT, HOMER E. |
| EASTMAN, SIDNEY C. | SIMPSON, JAMES |
| ELLSWORTH, JAMES W. | SMITH, SOLOMON A. |
| FIELD, MARSHALL | SPRAGUE, ALBERT A. |
| FIELD, STANLEY | STONE, MELVILLE E. |
| GAGE, LYMAN J. | STRAWN, SILAS H. |
| GRAHAM, ERNEST R. | WHITE, HOWARD J. |
| WRIGLEY, JR., WILLIAM | |

DECEASED 1924

- | | |
|------------------------|--------------------|
| ANDERSON, PEIRCE | MANIERRE, GEORGE |
| HUTCHINSON, CHARLES L. | PECK, FERDINAND W. |
| KOHLSAAT, HERMAN H. | SMITH, WILLARD A. |

LIFE MEMBERS

- ABBOTT, ROBERT S.
ALDIS, ARTHUR T.
ALDIS, OWEN F.
ALEXANDER, WILLIAM A.
ALLERTON, ROBERT H.
AMES, JAMES C.
AMES, KNOWLTON L.
ARMOUR, ALLISON V.
ARMOUR, A. WATSON
ARMOUR, J. OGDEN
ARMOUR, LESTER
AVERY, SEWELL L.
AYER, EDWARD E.
- BABCOCK, FRED'K. R.
BAKER, MISS ISABELLE
BANCROFT, EDGAR A.
BANKS, ALEXANDER F.
BARRELL, FINLEY
BARRETT, MRS. A. D.
BARRETT, ROBERT L.
BASSFORD, LOWELL C.
BECKER, A. G.
BILLINGS, C. K. G.
BILLINGS, FRANK
BLACKSTONE, MRS. T. B.
BLAINE, MRS. EMMONS
BLAIR, HENRY A.
BLAIR, WATSON F.
BLOCK, P. D.
BOOTH, W. VERNON
BORDEN, JOHN
BORLAND, CHAUNCEY B.
BREWSTER, WALTER S.
BRIDGE, NORMAN
BROWN, WILLIAM L.
BUCHANAN, D. W.
BUFFINGTON, EUGENE J.
BURNHAM, JOHN
BUTLER, EDWARD B.
BYRAM, HARRY E.
- CARPENTER, A. A.
CARPENTER, BENJ.
CARR, ROBERT F.
CARRY, EDWARD F.
- CARTON, L. A.
CHALMERS, WILLIAM J.
CLARK, EUGENE B.
CLAY, JOHN
CLOW, WILLIAM E.
COBE, IRA M.
CONOVER, H. BOARDMAN
COPLEY, COL. IRA CLIFF (N.R.)
CRAMER, CORWITH
CRAMER, E. W.
CRAMER, MRS. KATHARINE S.
CRANE, CHARLES RICHARD
CRANE, JR., RICHARD T.
CROSSETT, EDWARD C.
CROWELL, H. P.
CUDAHY, JOSEPH M.
CUMMINGS, D. MARK
CUNNINGHAM, FRANK S.
CUTTEN, ARTHUR W.
- DAU, J. J.
DAWES, CHARLES G.
DAY, ALBERT M.
DECKER, ALFRED
DEERING, CHARLES
DEERING, JAMES
DEFREES, JOSEPH H.
DELANO, FREDERIC A.
DICK, ALBERT BLAKE
DIERSSEN, FERDINAND W.
DONNELLEY, REUBEN H.
DONNELLEY, THOMAS E.
DOUGLAS, JAMES H.
DRAKE, JOHN B.
DRAKE, TRACY C.
- ECKHART, B. A.
EDMUNDS, PHILIP S.
- FAIR, ROBERT M.
FARNUM, HENRY W.
FARR, MISS SHIRLEY
FARWELL, ARTHUR L.
FARWELL, FRANCIS C.
FARWELL, JOHN V.

- FARWELL, WALTER
 FAY, C. N.
 FELT, DORR E.
 FENTON, HOWARD W.
 FERGUSON, LOUIS A.
 FERNALD, GUSTAVUS S.
 FERRY, MRS. ABBY FARWELL
 FIELD, II, JOSEPH NASH
 FIELD, MARSHALL
 FIELD, MRS. SARA CARROLL
 FIELD, STANLEY
 FINLEY, WILLIAM H.
 FLEMING, JOHN C.
 FORGAN, DAVID R.
 FORSYTH, ROBERT
 FYFFE, COLIN C. H.
- GARTZ, A. F.
 GETZ, GEORGE F.
 GLESSNER, JOHN J.
 GODDARD, LEROY A.
 GOODMAN, WILLIAM O.
 GOODRICH, A. W.
 GRAHAM, ERNEST R.
 GRISCOM, CLEMENT A.
- HAMILL, ERNEST A.
 HARRIS, ALBERT W.
 HASKELL, FREDERICK T.
 HASTINGS, SAMUEL M.
 HIBBARD, FRANK
 HILL, LOUIS W.
 HINDE, THOMAS W.
 HIPPOCH, LOUIS A.
 HOPKINS, J. M.
 HOPKINS, L. J.
 HOROWITZ, L. J.
 HOYT, N. LANDON
 HUGHITT, MARVIN
 HULBURD, CHARLES H.
- INSULL, SAMUEL
- JELKE, JOHN F.
 JELKE, JR., JOHN F.
 JOHNSON, MRS. ELIZABETH
 AYER
 JONES, ARTHUR B.
 JONES, THOMAS D.
- KEEP, CHAUNCEY
 KELLER, THEODORE C.
 KELLEY, MRS. DAPHNE FIELD
 KELLEY, RUSSELL P.
 KELLEY, WILLIAM V.
 KING, CHARLES GARFIELD
 KING, FRANCIS
 KING, JAMES G.
 KIRK, WALTER RADCLIFFE
 KITTLE, C. M.
 KNICKERBOCKER, C. K.
 KUPPENHEIMER, LOUIS B.
- LAMONT, ROBERT P.
 LAWSON, VICTOR F.
 LONDON, MRS. JESSIE
 SPALDING (N.R.)
 LEHMANN, E. J.
 LEONARD, CLIFFORD M.
 LINN, W. R.
 LOGAN, SPENCER H.
 LORD, JOHN B.
 LOWDEN, FRANK O.
 LYTTON, HENRY C.
- MacDOWELL, CHARLES H.
 MacVEAGH, FRANKLIN
 MARK, CLAYTON
 MARKHAM, CHARLES H.
 MARSHALL, BENJAMIN H.
 MARTIN, WILLIAM P.
 MASON, WILLIAM S.
 McCORMICK, CYRUS H.
 McCORMICK, HAROLD F.
 McCORMICK, STANLEY
 McELWEE, ROBERT H.
 McINNERNEY, THOS. H.
 McKINLAY, JOHN
 McKINLOCK, GEORGE
 ALEXANDER
 McLAUGHLIN, FREDERIC
 McLAUGHLIN, GEO. D.
 McLENNAN, D. R.
 McNULTY, T. J.
 McWILLIAMS, LAFAYETTE
 MEYNE, GERHARDT F.
 MINER, W. H.
 MITCHELL, JOHN J.
 MOORE, EDWARD S.

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MORSE, JR., CHARLES H.
MORTON, JOY
MORTON, MARK
MUNROE, CHARLES A.

NEWELL, A. B.
NIKOLAS, G. J.
NOEL, JOSEPH R.

O'BRIEN, JOHN J.
ORR, ROBERT M.

PALMER, HONORE
PALMER, POTTER
PAM, MAX
PATTEN, HENRY J.
PATTEN, MRS. JAMES A.
PATTERSON, JOSEPH M.
PAYNE, JOHN BARTON
PAYSON, GEORGE S.
PEABODY, AUGUSTUS S.
PICK, ALBERT
PIERCE, CHARLES I.
PIEZ, CHARLES
PIKE, CHARLES B.
PIKE, EUGENE R.
PORTER, FRANK WINSLOW
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PAULING, EDWARD G.
PEACOCK, CHARLES A.
PERLSTEIN, BENJAMIN

PICKARD, MRS. W. A.
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 PINCOFFS, MAURICE
 POLAKOFF, MICHAEL R.
 POWELL, MISS NELLIE
 PRICE, MRS. JEAN C.
 PROTHEROE, DANIEL
 PRUYN, JR., WILLIAM HENRY

RAFF, SR., WILLIAM J.
 RANDALL, REV. EDWIN J.
 RANSON, J. OTIS
 RAPAPORT, MORRIS W.
 REED, MRS. MARY L.
 REED, RUFUS M.
 RENICH, WILLIAM E.
 RICHARDS, H. A.
 RICHARDS, MARCUS
 RIDDLE, HERBERT H.
 RIGALI, JOHN E.
 RIPLEY, MRS. E. P.
 RITTENHOUSE, MRS. MOSES F.
 ROBERTS, JESSE E.
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 ROLFES, GERALD A.
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 RUSSELL, MILDRED A.
 RYAN, JOHN M.
 RYAN, THOMAS C.
 RYERSON, EDWIN D.

SAMPSON, H. J.
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 SCHNERING, JULIUS
 SCHNERING, OTTO Y.
 SCHWARTZ, G. A.
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 SCOTT, DR. JAMES
 McDONALD
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 SIMMONS, PARKE E.
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 SMITH, JENS
 SMITH, MISS MARY ROZET
 SNEDICOR, MARSHALL D.
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 STEARNS, FRED
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 TURNER, ALFRED M.
 TUTHILL, RICHARD S.
 TUTTLE, CHARLES S.
 TUTTLE, W. F.

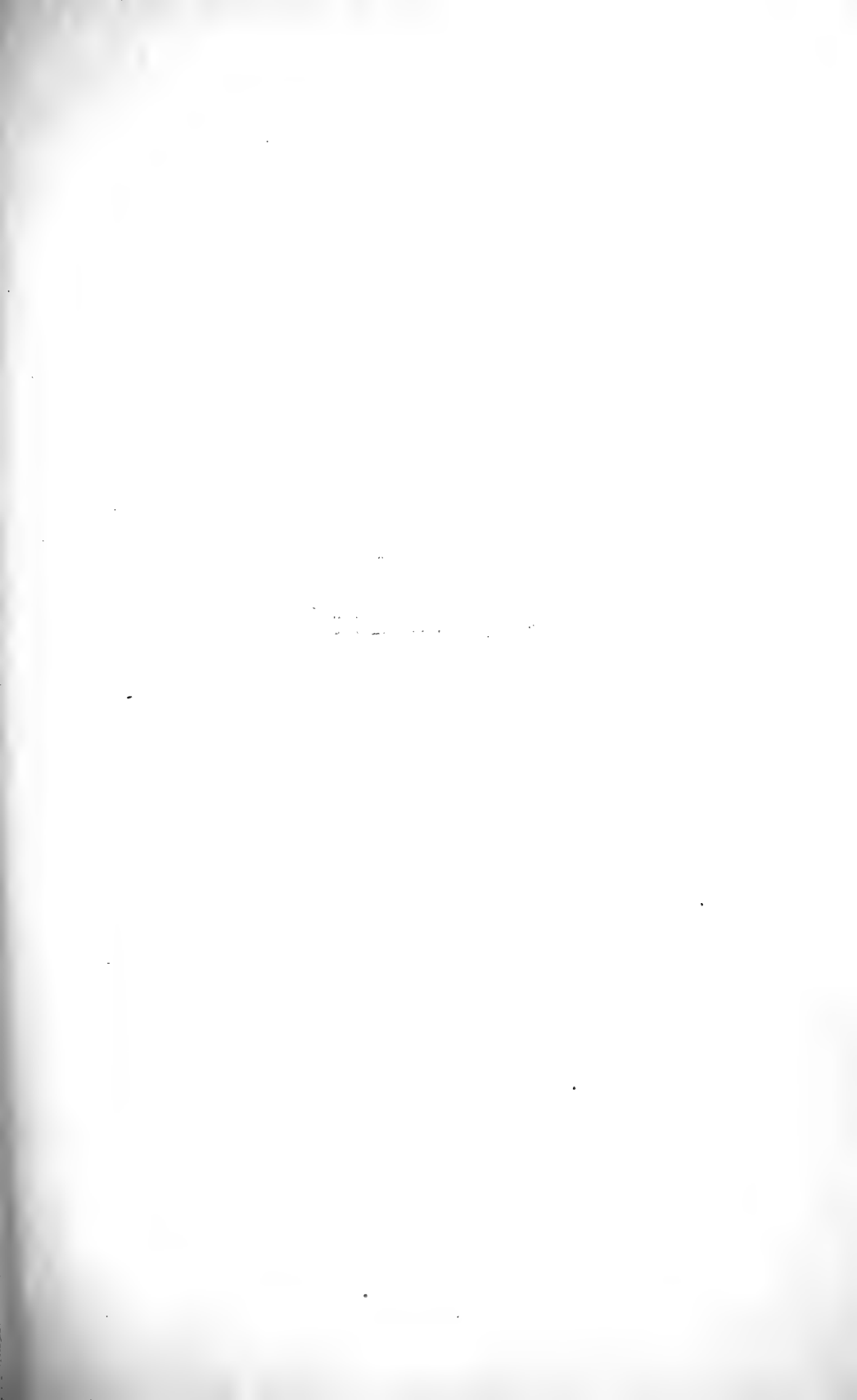
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 VOEGELI, MRS. JOHN J.
 VOLTZ, DANIEL W.
 VON KLEINWACHTER, DR.
 LUDWIG

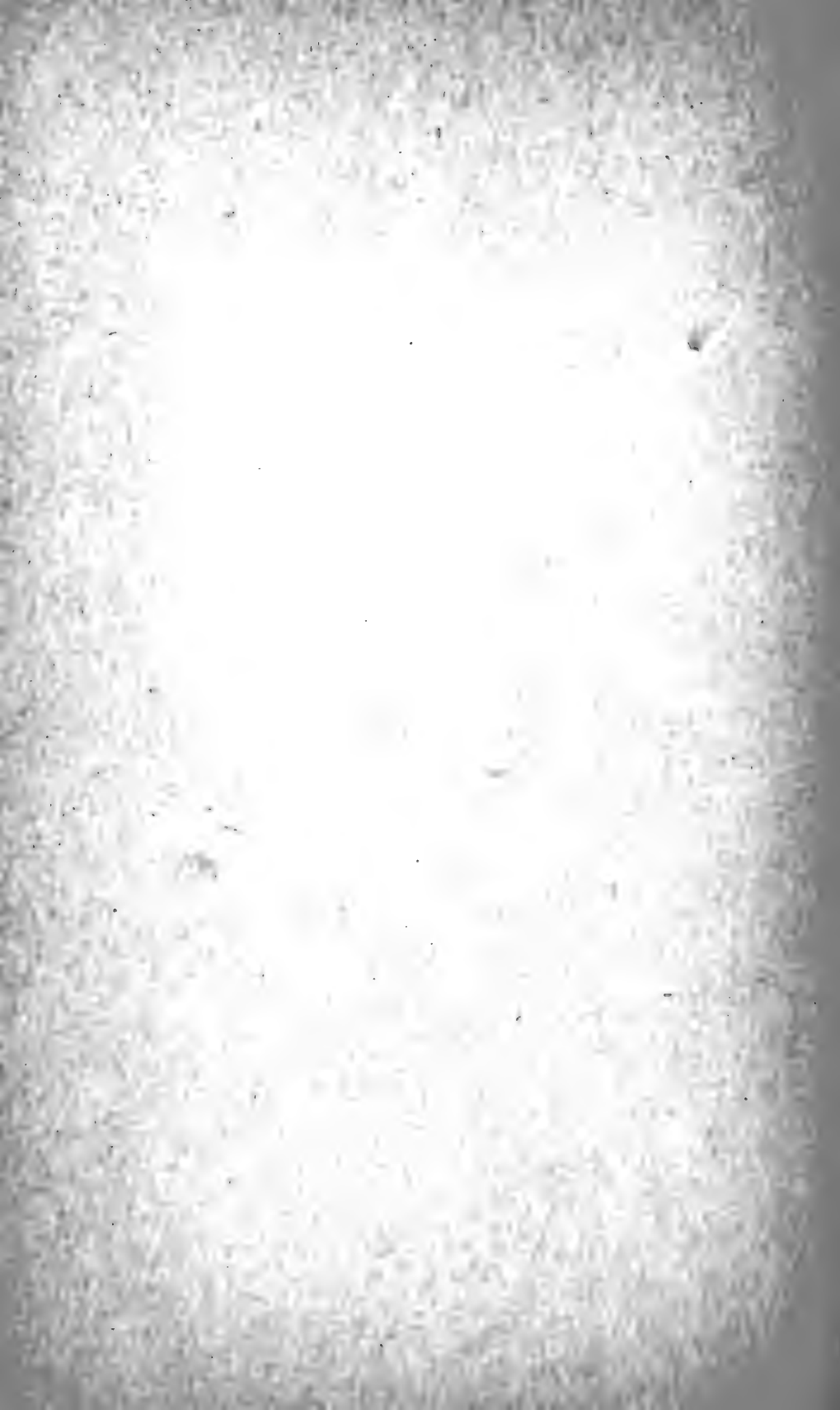
WACKER, CHARLES H.
 WAITE, MISS MURIEL W.
 WALKER, BERTRAND
 WALKER, JAMES R.
 WALLER, MISS KATHERINE
 WARREN, W. G.
 WECKER, WALTER A.
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 WEISS, SAMUEL H.
 WENTWORTH, JOHN
 WHEELER, LESLIE
 WHEELER, SEYMOUR

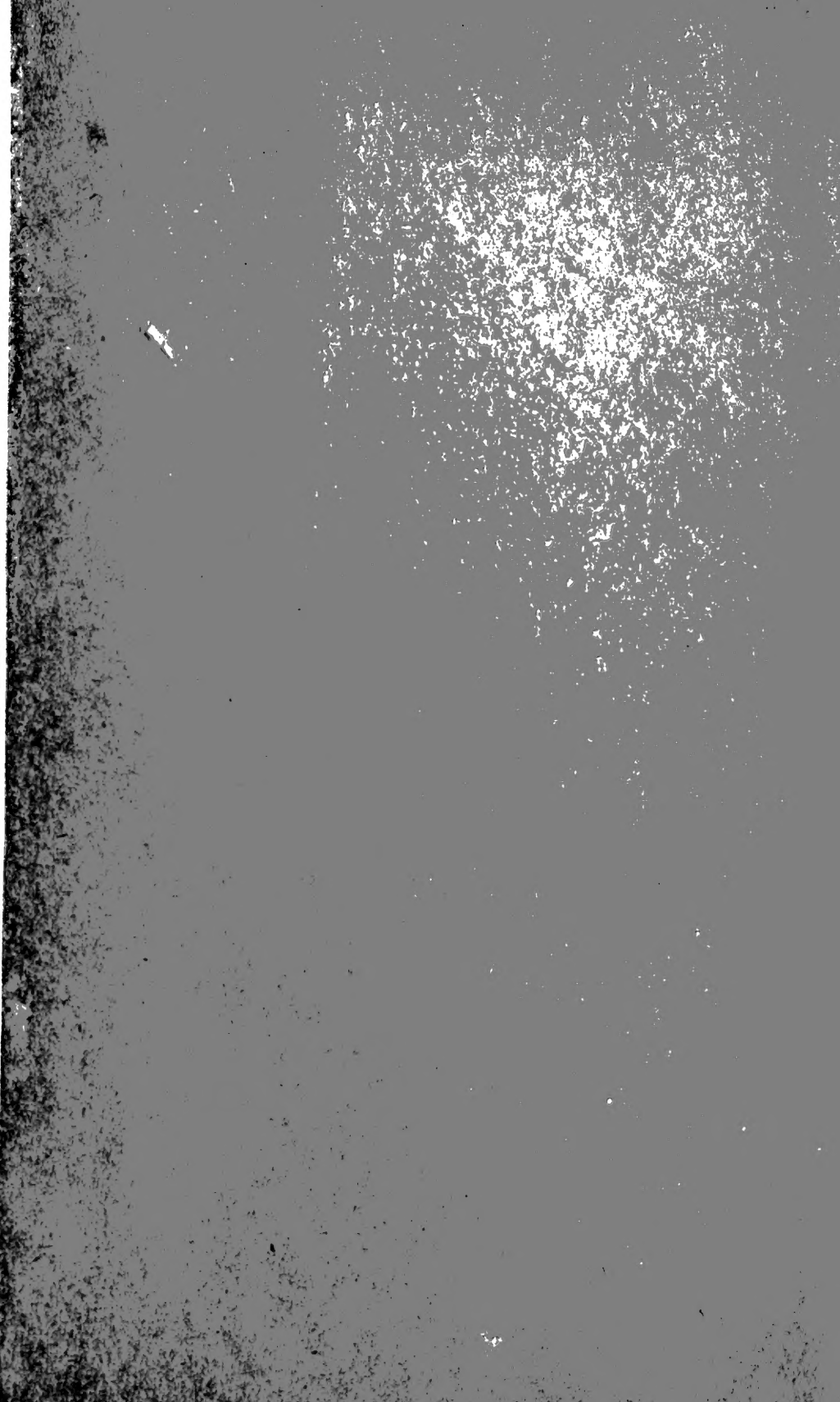
WHINERY, CHARLES C.	WOLFF, GEORGE F.
WHITE, CHARLES B.	WORTHY, MRS. S. W.
WHITEHEAD, W. M.	WRIGHT, DR. JAMES A.
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WITKOWSKY, MISS ESTHER	ZIMMERMANN, HERBERT P.
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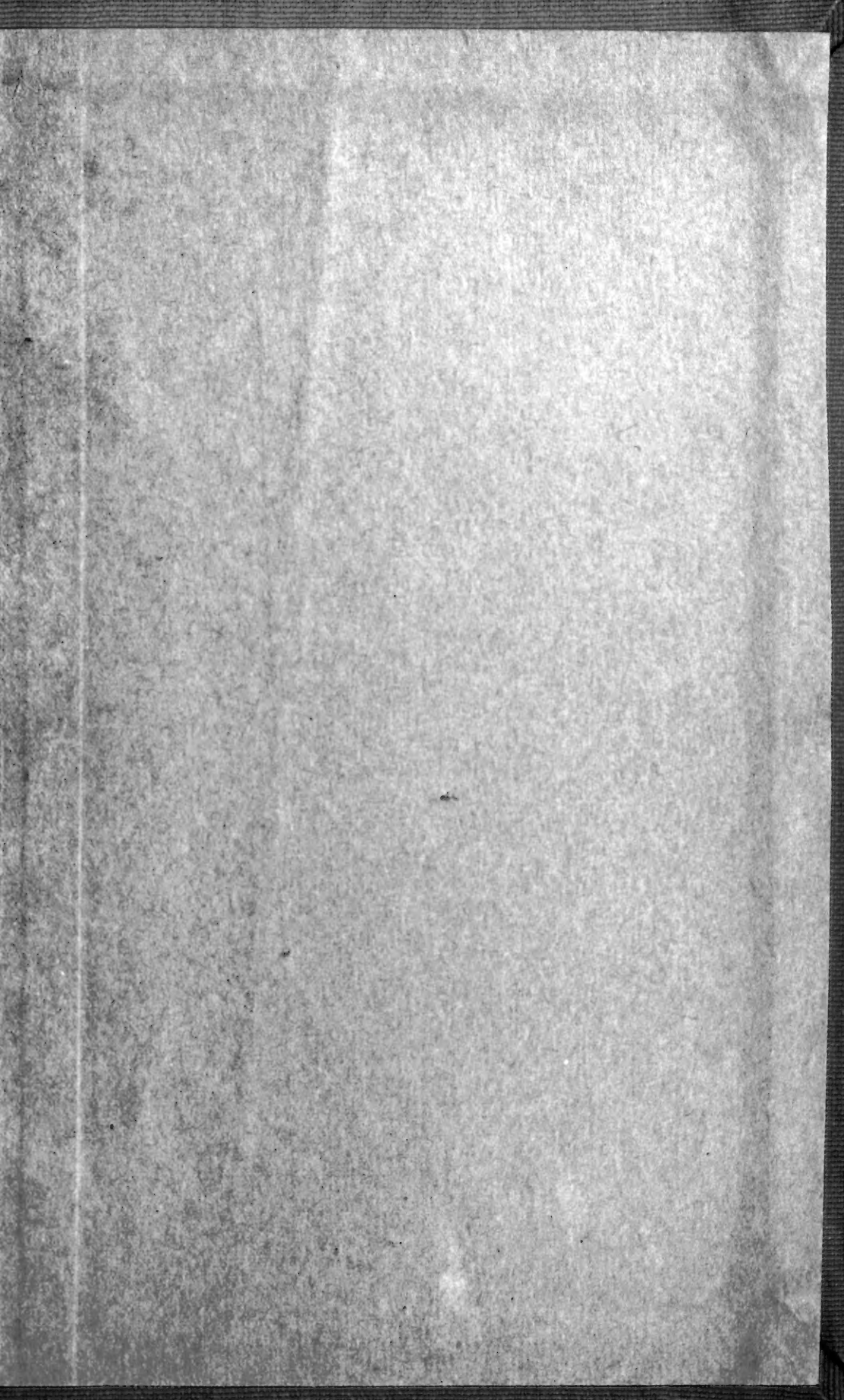
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ARMOUR, GEORGE A.	HEDMAN, CARL M.
COMSTOCK, WILLIAM C.	HEERWAGEN, DR. OSCAR W.
FOIN, CHIN F.	HOCH, JAMES J.
GREENLEAF, GARDNER	HOLT, GEORGE H.
HARTER, GUSTAV A.	SPENCE, MRS. ELIZABETH E.
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