



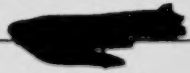
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FIELD MUSEUM OF NATURAL HISTORY.

1938

PUBLICATION 208.

REPORT SERIES.

VOL. VI, No. 1.

ANNUAL REPORT OF THE DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1921.

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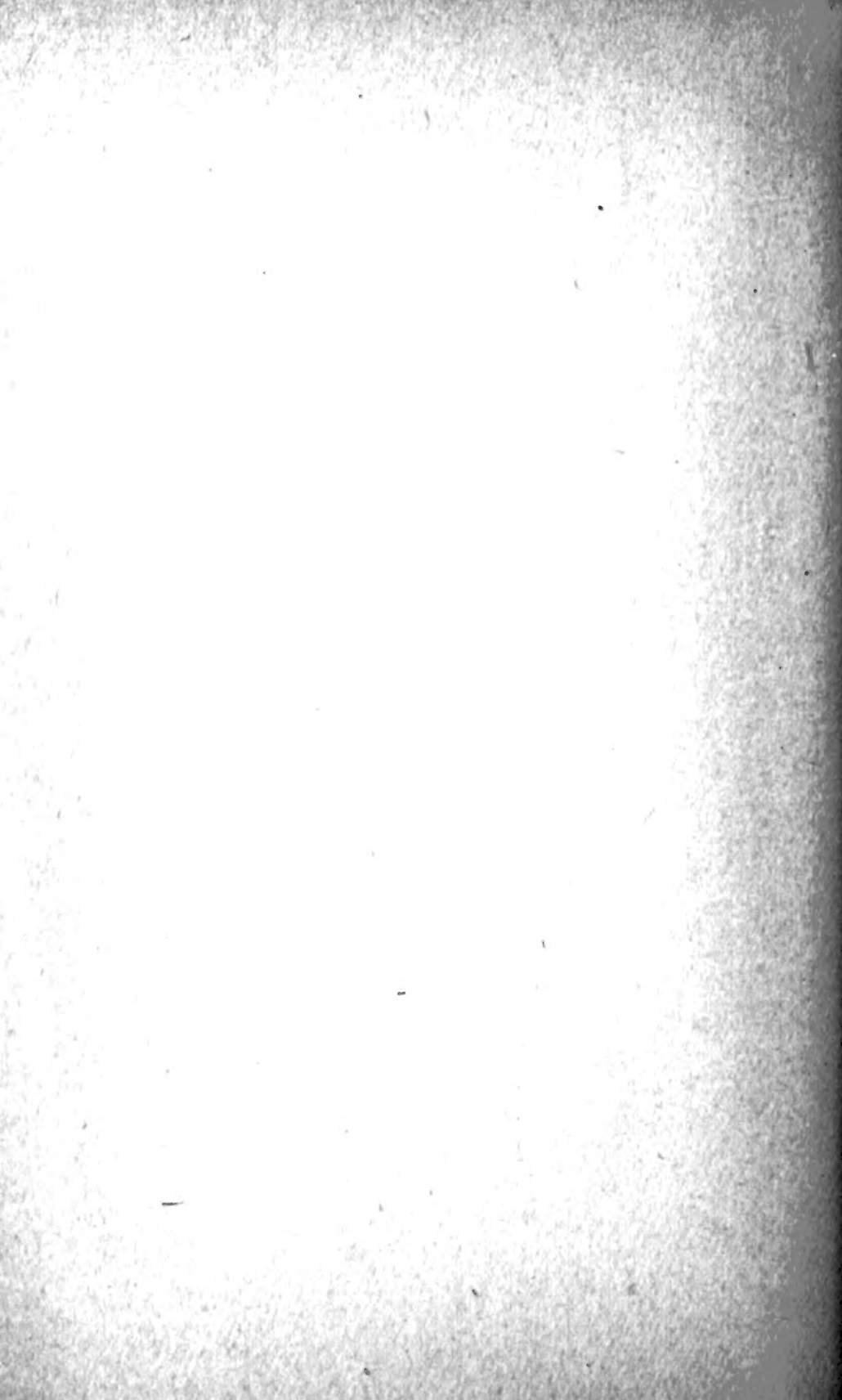


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THE LATE FREDERICK J. V. SKIFF.

Director of the Museum from December 16, 1893, to February 24, 1921,
the date of his death.

FIELD MUSEUM OF NATURAL HISTORY.

PUBLICATION 208.

REPORT SERIES.

VOL. VI, No. I.

ANNUAL REPORT OF THE
DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1921.



CHICAGO, U. S. A.

January, 1922.

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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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*Deceased.

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Assistant Curators

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 ALBERT B. LEWIS—*African and Melanesian Ethnology*
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B. E. DAHLGREN, *Associate Curator—Economic Botany*

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HENRY W. NICHOLS, *Associate Curator*

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DEPARTMENT OF ZOOLOGY

WILFRED H. OSOOD, *Curator*

WILLIAM J. GERHARD, *Associate Curator of Insects*

Assistant Curators

EDMOND N. GUERET—*Osteology*

R. MAGOON BARNES—*Oology*

ALFRED C. WEED—*Fishes*

EDMUND HELLER—*Mammals*

JOHN T. ZIMMER—*Birds*

Division of Taxidermy

JULIUS FRIESSER, *in charge*

DEPARTMENT OF THE N. W. HARRIS PUBLIC SCHOOL EXTENSION

S. C. SIMMS, *Curator*

THE LIBRARY

ELSIE LIPPINCOTT, *Librarian*

EMILY M. WILCOXSON, *Assistant Librarian*

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SUPERINTENDENT OF MAINTENANCE

JOHN E. GLYNN

SECTION OF PHOTOGRAPHY

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CHIEF ENGINEER

W. H. CORNING

DECEASED 1921

FREDERICK J. V. SKIFF, *Director*

CHARLES B. CORY, *Curator of Zoology*

EDWARD T. HARPER, *Assistant Curator of Cryptogamic Botany*

ANNUAL REPORT OF THE DIRECTOR

1921

To the Trustees of Field Museum of Natural History:

FREDERICK J. V. SKIFF

November 5, 1851 — February 24, 1921

Appointed Director December 16, 1893

Since the last issue of the Annual Report the Museum has sustained an irreparable loss in the death of its Director, Frederick J. V. Skiff, which took place suddenly at Chicago, February 24, 1921, after two days' illness. On the Monday preceding his death, Dr. Skiff attended the regular monthly meeting of the Board of Trustees, and assisted in the proceedings with his accustomed vigor and enthusiasm.

On such an occasion as this attention is invited more especially to the sterling character of Dr. Skiff, rather than to his achievements. The story of what he accomplished has been told. The memory of what he was is both uplifting and inspiring—the most loyal of friends, a lover of all good and beautiful things; a strenuous worker, a lively and entertaining talker, a patient and inspiring administrator, who infused his associates with his own zeal—he leaves in the hearts of all who knew him a bright and imperishable image, an ideal of faithful efficient service, combined with most amiable personal traits. And nothing in his life became him better than his last painful years. For sometime before his death he suffered from a distressing affliction which no remedy could arrest. His last years were lived in constant and sometimes almost unendurable physical agony, and in the knowledge that his silent fight could hardly be other than hopeless. And yet his courage, his faith in the virtue there is in life, his perfect confidence that all things work together for good, were unflinching. He labored so unceasingly and through consideration of others hid his suffering so carefully, that few suspected the ordeals of bodily pain through which he passed with a quiet indomitable courage that was a marvel to the few who knew the truth about his real condition. His interest in the many activities of the Museum and in the numerous educational and social projects of the Country was unabated. Greater fortitude could not have been displayed. No apparent sign warned his

associates of the close of his great and useful career, although the suddenness of the end was not altogether unforeseen by himself and those in his confidence.

When the history of Field Museum comes to be written, it cannot be doubted that the name of Frederick Skiff will be placed first among the pioneers. His modesty and self-effacement, his retiring and unselfish nature deprived him to some extent of popular applause by the public to whose service he gave his life, but among the immediate personnel for whom he labored and with whom he associated, he had a place few men find and fewer still have earned. Many, even those who had not the privilege of knowing Dr. Skiff intimately, will always remember his inspiring eloquence, the overpowering urge of his personality, and his faithful devotion to the Museum.

His more public work, especially in connection with the great expositions of the past quarter of a century, must be left to others to value and record. It may be recalled, however, that prior to his acceptance of the Directorship of the Museum, Dr. Skiff had occupied for two years the responsible post of Chief of the Department of Mines and Mining and Deputy Director General of the Chicago Exposition of 1893. Before coming to Chicago to enter into exposition and museum activities, Dr. Skiff for a number of years managed and edited the Denver Tribune. Associated with him in this work were the late Eugene Field, "Bill Nye," and O. H. Rothacker, authors and journalists. He was appointed Director-in-Chief of the United States Exhibits at the Paris Exposition in 1898-1901; Director of Exhibits of the St. Louis Exposition 1901-1905; was appointed by President Taft, United States Commissioner General to the Japanese Exposition, and in 1911 was appointed Director-in-Chief of the Panama-Pacific International Exposition at San Francisco. In recognition of his important achievements and the benefits to society accruing therefrom, Dr. Skiff had also received academic distinctions from many universities and learned institutions and decorations from practically all of the countries of the world.

I have the honor to present a report of the operations of the Museum for the year ending December 31, 1921:

The day appointed for the re-opening of the Museum was May 2, 1921. At this time and even before, the extensive collections, which had been transferred from the old building in Jackson Park, had been organized into a scientific and systematic arrangement and installed in the halls of the new building. Through active, not to say

strenuous effort on the part of all concerned everything was in readiness for the renewal of the work for which the Museum had been established. It had been decided by the Board of Trustees to hold no exercises in connection with the re-opening of the Museum, but invitations to an informal reception during the afternoon of May 2nd were extended to a list of 10,000 individuals, which included prominent citizens, educators, army and navy officers and public officials. Approximately 8,000 of these invited guests accepted the invitation and expressions of general admiration for the building and its arrangement were heard on all sides. The following day the Museum was thrown open to the public and that the new building and new facilities which it provides have met with hearty approval is shown by the fact that at this time the average daily attendance is more than double that recorded at the old building in Jackson Park.

The physical conditions of the Institution at the date of this review show but a small part of the actual work performed since the occupancy of the New Building. The scientific work in connection with the reinstallation has been of a nature that is not apparent to the casual observer and is concealed, as a matter of fact, from even the more critical visitors. The work in the laboratories and the constant application of time and study to the tasks of identification, labeling and inventorying have pushed these essential features of Museum work distinctly forward. The vast amount of this labor suddenly devolving upon the Museum staff, as it did at the reopening of the Museum, would have dismayed those less earnest and confident. Thanks are due to the staff and to all classes of labor for the very excellent work accomplished. Those in the more responsible positions have had anxious and arduous times, but fortunately the Museum has men and women on whom it can depend and their loyal service is much appreciated. It would be bare justice to mention many by name, but it would be injustice to omit others, so in fairness all should be included.

President Field, at the December meeting of the Board of Trustees, announced that he had decided to assume the entire deficit occurring in the Building Fund, towards which he has already contributed the sum of \$150,000.00. To this deficit Mr. Potter Palmer has also contributed during the year the sum of \$1,000.00.

At the same meeting of the Board, the President intimated that Captain Marshall Field had volunteered to contribute the sum of \$50,000.00 annually for a period of five years for the purpose of dispatching expeditions into the field, defraying the cost of new exhibition

cases and for the publication of manuscripts prepared by members of the staff. Captain Field has also contributed the sum of \$65,000.00 to liquidate the deficit in the General Fund for the year 1921.

The acquisitions and contributions received or announced during the year have been exceptionally numerous and valuable as will be seen from the list of accessions appended to the report. Mention should be made of the contribution of \$25,000.00 made by Mr. Arthur B. Jones, to defray the expense of an ethnological survey in Malaysia, particularly in the Malay Peninsula and the Dutch East Indies.

Upon learning that the Museum contemplated increasing its printing shop equipment, Mr. William V. Kelley generously presented the Institution with a new Miehle Cylinder Press, which is especially adaptable for printing the publications of the Museum.

Mr. Stanley Field presented to the Board of Trustees of the Museum an oil portrait of himself and also one of the late Director, Doctor Skiff. Mrs. Richard T. Crane, Jr., presented an oil portrait of the late Mr. Harlow N. Higinbotham, and Mr. Edward E. Ayer presented an oil portrait of himself.

Miss Helen C. Gunsaulus has presented to the Museum, in memory of her father, Dr. Frank W. Gunsaulus, her entire collection of Japanese Surimono. The Board of Trustees has dedicated a hall in honor of Dr. Frank W. Gunsaulus, in which the Japanese Surimono are to be exhibited.

President Field has assumed the entire expense of furnishing the Trustees Room in the new building.

Mrs. Frederick J. V. Skiff presented a bronze bust of the late Dr. Skiff, which has been installed in "Frederick J. V. Skiff Hall" in the Department of Geology.

Mr. William Wrigley, Jr., contributed the sum of \$3,500.00 towards the purchase of 29 Buddhistic sculptures.

Mr. Edward E. Ayer continued his contributions of books for the Edward E. Ayer Ornithological Library, details of which appear elsewhere in this report.

President Field presented to the Department of Zoölogy three animal pieces in bronze, sculptured by Carl E. Akeley.

The Museum has received as a gift a mimeographing machine from Mr. A. B. Dick.

During the year the vacancies existing in the membership of the Board of Trustees were filled by the election of Mr. Richard T. Crane, Jr., Mr. James Simpson, Mr. Harry E. Byram and Mr. Ernest R. Graham.

Colonel Albert A. Sprague was elected Third Vice-President, the Board of Trustees having created this office by an amendment to Section I, Article IV of the By-Laws.

Mr. D. C. Davies was elected Secretary of the Board to fill the vacancy existing, and Mr. George Manierre was elected Assistant Secretary.

Mrs. Edward E. Ayer was chosen an Honorary Member of the Museum, in view of the eminent service she has rendered to science.

The Life Members of the Institution were increased by the election of Mr. Frederic W. Upham, Mr. Francis C. Farwell and Mr. Colin C. H. Fyffe. Mr. Marvin B. Pool was elected an Associate Member of the Museum.

At a meeting of the Board of Trustees, held December 19, 1921, the present incumbent was appointed Director of the Museum to succeed the late Doctor Frederick J. V. Skiff.

At a special meeting of the Board, held March 1, 1921, Benjamin Bridge was appointed Auditor, and at the regular meeting of the Board in April, Henry F. Ditzel was appointed Recorder.

The Museum sustained a signal loss in the death of Charles B. Cory, Curator of Zoölogy. Prof. Cory had been in the service of the Museum for twenty-eight years, during which period his conscientious, untiring devotion to his work and his cheerful presence had deeply impressed all his associates. Prof. Cory was first and foremost an ornithologist, and this was attributable to no lack of sympathy with the larger field, but because he recognized that the larger field could not be successfully covered by one man. His work on "The Birds of the Americas," in preparation at the time of his death, furnishes abundant evidence of his remarkable knowledge of the literature of his subject and his ability to use it to the greatest advantage. The book is an elaborate catalogue and the special attributes essential for the production of such a work Prof. Cory possessed in a marked degree.

To complete and edit this work the Museum has been enabled, through the generosity of Mr. Charles R. Crane, to secure the services of Dr. C. E. Hellmayr, one of the leading and best known European ornithologists. Dr. Hellmayr is at present affiliated with the University of Munich and will probably arrive in Chicago early in the summer of 1922 prepared to commence his duties. As Dr. Hellmayr's ornithological labors have been particularly directed to South America and as he is familiar also with the important collections of birds in Europe, the Museum is specially fortunate in having obtained his consent to undertake the completion of this monumental work.

During the year Alfred C. Weed was appointed Assistant Curator of Fishes and Ralph Linton Assistant Curator of North American Ethnology. Late in the year Wilfred H. Osgood was appointed Curator of Zoology, to succeed the late Charles B. Cory, and William J. Gerhard was appointed Associate Curator of Insects. In the Department of Geology, Henry W. Nichols was appointed Associate Curator of Geology and Elmer S. Riggs Associate Curator of Paleontology. The appointment of J. Francis Macbride as Assistant Curator in the Department of Botany is also announced, the appointment taking effect January 1, 1922.

Upon the recommendation of the Executive Committee, Hall No. 3 has been dedicated to Mary D. Sturges, and Hall No. 13 has been dedicated to George M. Pullman, two of the early benefactors of the Museum.

The sudden death of Doctor Frank Wakeley Gunsaulus, one of the original Incorporators and Trustees of the Museum and a Patron of the Institution, occurred during the year. Dr. Gunsaulus took an active interest in the foundation of the Museum and from time to time had made many valuable gifts to the Institution. The Board of Trustees at a meeting May 16, 1921, adopted the following testimonial:

"We Fellow Members of the Board of Trustees of Field Museum of Natural History and associates and friends of the late Frank Wakeley Gunsaulus desire to express our appreciation of his life and service:

We recognize:

That in his death the World has lost a man of high moral worth, unusual breadth of intellect, profound human sympathy, unswerving loyalty to duty and unfailing devotion to his family and friends.

That the Nation has been bereft of a patriotic, public-spirited and loyal citizen, and American Science and Art of a distinguished investigator and adviser, and an earnest and efficient administrator.

That Field Museum of Natural History and all Institutions organized for the promotion of knowledge have lost a faithful and willing co-worker.

We mourn his loss not only on account of his high intellectual attainments and qualities, but also because he was a man of broad sympathy and tender heart, of upright character and deep spiritual discernment.

We extend to the members of his bereaved family in this hour of their affliction our sincere sympathy, and in token thereof have ordered a copy of this expression of our appreciation transmitted to them, and have likewise ordered it spread upon the records of Field



THE LATE FRANK W. GUNSAULUS.
An Incorporator and Trustee of the Museum,

Museum of Natural History, of which Institution our late associate was not only a devoted Trustee but also one of the original incorporators."

As important aids to the facilities for installation and maintenance, there have been added to the Carpenter Shop machinery a bench planer, variety saw and hollow chisel morticer, together with the necessary motor equipment. During the year the shop made and installed 1,606 lineal feet of book shelving of various depths, 11,676 square feet of storage shelving, racks for 1,450 trays, 28 work benches of special designs with wood or soapstone top, fitted with drawers of various dimensions, cupboards and pigeon holes. Racks for 437 storage cans, three book stacks for the General Library and other miscellaneous work has also been executed for the working areas on third floor. The toning room and stock room in the Section of Photography have been furnished with lead lined tanks, cupboards, work benches, shelving and window shutters.

Considerable new apparatus has also been added to the Section of Photography, which will undoubtedly increase the efficiency of the work and enable the section to produce better and more accurate results. This section is now producing the picture postal cards which are sold to visitors.

Extensive additions have also been made to the equipment and facilities in the Section of Printing. The space on the fourth floor, formerly occupied by this section, was not considered suitable to accommodate the additional work of printing the publications of the Museum, all of which work, it has been decided, will be performed in the Museum in the future. The section was therefore transferred to a large, well-lighted room on the third floor, near which space for a commodious stock-room was provided. To carry the heavy load of the Miehle Cylinder Press and Automatic Paper Cutter a room in the south end of the ground floor was selected for this portion of the new equipment. In addition to the cylinder press and paper cutter, there have been installed in the printing shop a book sewing machine, stitcher, and motors for all machinery, including two motors for the platen presses.

Owing to constant demand from visitors, a restaurant has been opened on the ground floor and the patronage thus far bestowed seems to justify this convenience.

INCOME AND MAINTENANCE.—The budget approved by the Board of Trustees authorized the sum of \$290,786.00 for the maintenance of the Museum for the year 1921. The actual income received during

that period amounted to \$215,123.00. The actual expenditures amounted to \$280,123.00, leaving a deficit of \$65,000.00, which amount, as mentioned elsewhere in this report, was contributed by Captain Marshall Field. As a matter of record it may be stated that part of the amount disbursed for maintenance included the expense of new construction work on the third floor, where a certain amount of labor was required for the readaptation of the area to render it more fit for the uses to which it is now devoted.

PUBLICATIONS.—During the year two publications were issued, details of which follow:

Pub. 206—Report Series, Vol. V, No. 6. Annual Report of the Director for the year 1920. 75 pages, 11 halftones, edition 1,500.

Pub. 207—Zoological Series, Vol. XIV, No. 1. A Monographic Study of the American Marsupial, *Caenolestes*. By Wilfred H. Osgood. With a Description of the Brain of *Caenolestes*. By C. Judson Herrick. May, 1921. 162 pages, 1 map, 22 halftones, edition 750.

THE LIBRARY.—Many valuable and interesting works have been received during the year by gift, exchange and purchase and several of these warrant special mention. President Field presented eleven volumes and eleven portfolios of the monumental work on the North American Indian by Edward S. Curtis and Frederick W. Hodge, to be completed in twenty volumes. In addition to the ninety-two volumes of ornithological works purchased during the year for the Edward E. Ayer Ornithological Library, Mr. Ayer presented the Clarke Piscatorial Library of 1,640 volumes, which is a beautifully bound collection made by Robert Clarke of Cincinnati previous to 1892. It contains eighteen original editions of Izaak Walton's Complete Angler and a number of works dating back to the fifteenth and sixteenth centuries. A general atlas, dated Edinburgh, 1817, of considerable historical interest, was presented by Director Davies. From the Carnegie Institution of Washington, one hundred and seventy-eight publications were received and the library was made a repository for all future publications pertinent to the work of the Museum. Two hundred and fifty books and pamphlets, with a number of duplicates, were received with the E. T. and S. A. Harper mycological collection. Early in the year the Smithsonian Institution resumed the transmission of publications to practically all of the international exchange bureaus and efforts were made to obtain the publications held back during the

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THE LATE CHARLES B. CORY
Curator of Zoology.

war for lack of transportation. These have been coming in steadily, but still further efforts will have to be made to secure the numbers that were issued in limited editions. Exchanges were received from six hundred and forty-two institutions and individuals. Publications from all sources reached a total of 3,647 books and pamphlets, a considerable increase over the receipts of any of the past four years. The books and pamphlets total 77,471. Purchases of books and periodicals were limited for the most part to the immediate needs of the staff. The cost of binding is gradually being lowered and two hundred and seventy books were bound. There have been written and inserted in the catalogues 11,600 cards. Early in the year the books of the general library were cleaned, restored to their classification and shelved in rooms at the southeast end of the building. Space has now been permanently assigned for the library on the third floor.

DEPARTMENTAL CATALOGUING, INVENTORYING AND LABELING.—During the year the work of cataloguing in the Department of Anthropology has progressed as the new accessions were acquired. The total number of catalogue cards prepared amounts to 983, which includes the Japanese Surimono presented by Miss Helen C. Gunsaulus. These cards are distributed over the single divisions as follows: North American Ethnology 468; Southwest, Mexican and South American Archaeology 21; Melanesian and African Ethnology 99; and Ethnology of China, India and Japan 395, and have been entered in the inventory books of the Department which now number 38. The number of annual accessions amounts to thirty-nine, twenty-eight of which have been entered. The total number of catalogue cards entered from the opening of the first volume amounts to 156,177. The Department has been supplied with a total of 4,984 printed labels. These are distributed over the divisions as follows: Stanley Field Hall, 315; Eskimo, Northwest Coast, etc., 854; Plains Indians, 1331; Indians of California, 96; South America, 1,038; Melanesia, 409; China, 220; Tibet, 6; Korea, 215; Formosa, 77; Japan, 227; India, 100; and Higinbotham hall, 96. A total of 458 label cards was added to the label file and 156 prints were placed in the photographic albums.

All newly accessioned specimens in the Department of Botany have been catalogued as fast as organized. A total of 14,058 entries has been made in the fifty-eight catalogue volumes, bringing the total number of catalogued specimens up to 496,367. Augmentation of the various card indexes during the past year has been necessarily slight, due to the preponderance of other work. Additional cards have been inserted as follows:

	No. of Cards	
	Augmented 1921	Total
Index to Botanical Species	4,870	161,488
Index to Common Names	914	21,280
Index to Yucatan Plants	80	6,456
Index to Euphorbiae	15	4,247
Index to Department Labels	269	3,405
Index to Geographic Localities	42	2,809
Index to Collectors	280	10,144
Index to Botanical Titles .....	.....	1,575
Index to Department Library .....	.....	8,800
Index to Illinois Flora .....	.....	910
Index to Hand Specimens of Wood .....	.....	2,446
Index to Installation .....	.....	595
Index to Photographs .....	.....	600

Although a large number of accessions has been received during the year by the Department of Geology, it has been possible to catalogue all specimens as soon as received. The total number of new entries made during the year is 4,046, the largest number of these, 3,213, being in invertebrate paleontology, due chiefly to additions received from the Dyer collection. In the economic division 482 new entries were made, and to the systematic mineral catalogue 271 numbers were added. More than 2,000 labels were written, printed and installed during the year in an endeavor to have all exhibited specimens uniformly labeled. Some of these labels are reprints on black cardboard of former buff labels, but the larger number relate to new specimens or are modifications in size or in wording, or both, of previous labels. In all labeling every endeavor was made to secure complete accuracy before printing. About forty of the labels were descriptive and of considerable length. Labels for some of the relief maps, for example, comprise between 2,000 and 2,500 words, while that for historic diamonds consists of about 3,200 words. In choosing type for the labels, as large sizes as were deemed allowable without increasing too greatly the bulk of the label were employed in order to facilitate reading. The entire series of systematic labels for vertebrate paleontology was revised or rewritten. New labels of from 300 to 500 words were written for the Asphaltum Beds fossils, Minoaka Mastodons, Teeth of the Mastodon and the Horse and Titanotheres Families. Of the new labels of smaller size, 710 were for exhibits of ores, salts, and abrasives; 252 for the petroleum, coals, clays, soils and cements; 216 for the paleontological collections; 202 for Stanley Field Hall, and the remainder for miscellaneous specimens. To the Departmental photograph albums twenty-

eight prints have been added, making a total number of 2,939 prints in these albums.

The reference collections in the Department of Zoölogy remained inaccessible during most of the year, and cataloguing, therefore, was impossible. The total number of entries made was 326, distributed as follows: Mammals, 5; Birds, 49; Eggs, 1; Fishes, 39; Reptiles and Batrachians, 226; Invertebrates, 6. Record cards written during the year number 490, principally those of an index to the systematic exhibit of birds. Very little labeling of specimens in the reference collections has been done; but a very large number of new exhibition labels were written and printed. These included a few for the mammals, a large number for the birds, a complete series for the habitat groups, for all the fishes and reptiles and for a large number of shells.

The following shows the work performed on catalogues and the inventorying accomplished:

	Number of Record Books	Total No. of entries to Dec. 31, 1921	Entries during 1921	Total No. of cards written
Department of Anthropology ...	38	156,177	983	156,177
Department of Botany	58	496,060	14,058	224,764
Department of Geology	22	145,518	4,046	8,456
Department of Zoölogy	40	101,631	326	34,896
The Library	14	125,060	7,294	295,316
Section of Photography	20	123,720	2,481	.....

ACCESSIONS.—Through the generosity of Mr. Martin A. Ryerson and Mr. Homer E. Sargent, the Department of Anthropology is enabled to list, among its important acquisitions of the year, a collection of eighteen Mexican serapes gathered by Mr. Herbert J. Browne during a long sojourn in Mexico. The serape is made from two rectangular blankets of particularly fine texture and quality, sewn together lengthwise to form a square and having a short slit in the center through which the wearer may slip his head, the whole being worn over the shoulders in the same manner as the rubber poncho. The making of these blankets originated in Mexico shortly after the Spanish conquest and rapidly became a jealously guarded institution which flourished in certain parts of the country until 1850, a date which marks the beginning of a decline in that industry which proved even more rapid than the ascendancy. The exponents of the old art are now extinct, and while ordinary specimens are manufactured today in various sections of the country, the fine textiles with their brilliant colorings and exquisite patterns are rapidly disappearing, as

have already the secrets of their manufacture. The present collection consists of representatives of all the important types known in Mexico; eight from Saltillo, five from San Miguel, and one each from Guadalajara, Senora, Chihuahua, Puebla, and Zacatecas. Of these, those from Saltillo and San Miguel are the most beautiful as well as the most valuable; for these two cities have the distinction of being the best known seats of serape manufacture. The general Saltillo pattern shows a medallion consisting of concentric diamonds in various colors upon an all-over design in stripes, the motives being minute geometric patterns skillfully interlocked in rich and permanent colors. Of the Saltillo serapes, the one from the Obregon Hacienda, which is authenticated as having been woven about 1775 by a weaver from Saltillo who consumed two years at the Hacienda spinning and dyeing the yarn and weaving the blanket, is of particular interest. The tomato pink and Nile green colors of this blanket are exceptionally rare and add greatly to its value; for the secret of their manufacture, after having been handed down only a few generations, died out. The San Miguel blankets have a characteristic rosette instead of diamond in the center. This collection, together with another serape from Saltillo of exquisite design and coloring which was obtained by purchase, is exhibited in Case 1 of Hall 8. Mr. Edward E. Ayer presented a valuable Navaho blanket, which is being used for exhibition in the case showing Indian blankets in Stanley Field Hall, an Eskimo snow-beater carved from walrus-ivory and engraved with hunting and whaling scenes, and a Sioux buckskin gun-case heavily beaded. An addition of 215 baskets from different North American Indian tribes was made to the already large collection that has been presented by Mr. Homer E. Sargent. A complete series of reproductions of men of prehistoric races was secured from Professor J. H. McGregor, Department of Zoology, Columbia University, New York. These consist in the main of busts of the Pithecanthropus, Neanderthal, Cro-Magnon and Chappelle-aux-Saints men, as well as casts of restored skulls and jaws, all of which will be utilized to good advantage in the new hall planned for an exhibition of physical anthropology. A very fine and interesting piece of tapa cloth from Suva in the Fiji Islands was donated by Mr. and Mrs. Robert B. Dickinson of Chicago. Mrs. Ralph S. Greenlee of Chicago presented an accurate and beautiful model of the famous Taj Mahal at Agra, India, which was immediately placed on exhibition in Hall 32. A collection of ninety-seven objects gathered by Mr. Barbour Lathrop of Chicago was

presented by him. The collection consists of objects coming chiefly from Java, Celebes, Timor Laut, and Dutch New Guinea, with a few pieces from Babber, Dammer, Letti and other small islands of that region. A large Korean cabinet with excellent brass fittings and a large number of knives, kris, spears, bows and arrows, bark garments and ornaments of shell and ivory are among the objects in the collection. Two of the Javanese kris, the blades of which are finely marked with inlaid silver and the handles surmounted by full figures in brass representing Hindu deities and studded with precious stones and beads, are worthy of special recognition. An exceptionally fine feast bowl of painted lacquer from Burma was received from Mr. Frederick R. Babcock of Wheaton, Illinois. This bowl is decorated all around with miniature paintings of exquisite quality, all of them representing scenes from the Indian epic poem, the Ramayana, and explained in Burmese legends. Mr. William J. Chalmers gave an excellent cloisonné-enamel jar from China which is remarkable because of its harmonious design and coloring, and highly prized because it was made in the latter part of the fifteenth century. A miscellaneous collection of eighty objects gathered on his travels in the Orient was received as a gift from Mr. Robert H. Fleming of Chicago. It is particularly rich in swords, daggers, and other weapons from China, Japan, India, Turkey, Spain, and Mexico. Of exceptional interest are two batiks from Java and a remarkable, large embroidered hanging from China, fifteen feet in length and nine and one-half feet in width. The latter bears a lengthy Chinese inscription from which it is ascertained that this embroidered picture was bestowed upon a certain Mr. Hu in 1863 in commemoration of his seventieth birthday by the prefect of Lin-kiang in Kiang-si Province. Especially opportune are twelve Japanese swords and six sword-guards which will make more complete the exhibition of Japanese swords and their fittings now in the process of installation. There are examples of the various types of swords used on different occasions, such as the ornamental sword for parade purposes, the fighting sword, the small sword, the dagger, the small dagger for women, and the slung sword. An excellent collection of Japanese Surimono was presented by Miss Helen C. Gunsaulus in memory of her father, Dr. Frank Wakeley Gunsaulus, former trustee. Surimono are color print cards of greeting which are produced for special occasions such as New Year, birthdays, and other festival days. The great majority are prepared for private distribution only, and it is except on rare occasions that any are placed on public sale. They far

excel the common prints; for, although they are produced by the same artists and in much the same manner, they are further enriched with elaborate embossing or gaufrage and the use of metal dusts: gold, silver, and copper. Poems, which bear an inward relation to the subject pictured, appear on the cards. The collection presented is one of the very few to be found in America, and consists of 360 Surimono made between 1780 and 1850. To the student of ethnology these prints render an invaluable service, for, brought together with excellent discrimination and a keen appreciation of the value and beauty of this avenue of approach to a study of the Japanese nation, they show with a wealth of detail the customs, costume and popular traditions of that nation. Every step of the important New Year's celebration has been delineated; games, festivals, intimate glimpses into the household, and scenes of old court-life are pictured in delicate detail; incidents taken from history, folk-lore, and classical drama, have been the inspiration of the artists quite as frequently as the flowering cherry, the first song of the nightingale, or the snowy peak of Mount Fuji. Owing to their fascinating subject-matter and their artistic merits, these prints make a ready appeal to every one, and will contribute their share to a better understanding of Japan. A further interesting addition was made to the collections of Japanese ethnology when three full costumes for women, typical examples of apparel worn by the military (Samurai) class, were purchased from Miss Michi Sato of Tokyo. The three costumes are: the winter ceremonial robe, the summer ceremonial robe, and the costume that is worn on the street. The winter robe is of heavy blue Canton crepe with the family crest printed in white, and is embroidered with small asters. The sash worn with this costume is a singular acquisition in itself, as it is made of five yards of heavy brown brocade and is adorned with a bamboo, wistaria and pheasant design in soft-colored and gold threads. The summer dress is also an excellent example of the Japanese costume. It is of blue silk, screen weave with embroidered lilies, and is worn with a blue and white sash which has a wave design in silver thread. The street costume is of striped crepe in two shades of blue, and has a brocaded sash. These three costumes, together with a dress worn at a wedding feast, the latter being of quite a different type from the others, and which was donated to the Museum by Miss Helen Wilkins, will combine to illustrate adequately the costume of Japanese women of the Samurai class. They will be exhibited in a realistic manner on life-size figures with a facial cast taken of Miss Sato and with correct hair-dressings. Mr.

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HALL OF MINERALOGY.

This hall contains the systematic mineral collection, the collection of meteorites and a part of the collection of structural geology.

Gilbert Grosvenor, editor of the National Geographic Magazine, presented six copies of a new map of Eastern Asia and six copies of a new map of South America, which will be utilized for exhibition purposes in the halls devoted to those subjects. The collection of photographs was greatly enriched by an interesting series of a hundred photographs taken by Mr. L. Winternitz of Chicago among the Seminole of Florida and in India, Burma, and other oriental countries, and which he presented to the Museum.

Among the notable collections received by the Department of Botany during the past year is the balance of the Harper Herbarium, presented to the Museum by the late Dr. Edward T. Harper and Susan A. Harper. A well lighted room 21x63 ft. has been assigned for its organization and installation. This herbarium consists of about 40,000 specimens, chiefly fungi; 6,000 photographs of fungi; a number of published exsiccata, and works of reference; and a mass of data and manuscript pertaining to the collections. A Preparator has been appointed to organize the material for cataloguing, and to date 6,585 specimens have been catalogued. The exsiccata include, among others: Fungi Selecti and Myxomycetes—O. Jaap, (700 specimens); New York Fungi—Shear, (331 specimens); Fungi Selecti—Torrend, (400 specimens); North American Fungi—Ellis and Everhart, (4,000 specimens); Microtheca Brasilensis—Ule, (2,000 specimens); Lichenes Boreali-Americani—Cummings, Williams and Seymour, (300 specimens); Uredineæ—Arthur and Holway, (200 specimens); Central American Fungi—C. L. Smith, (224 specimens); Economic Fungi—Seymour and Earle, (661 specimens); Phycotheca Bor.—American—Collins, Holden and Setchell, (2,425 specimens); Fungi Europæi—Rabenhorst—Winter; Fungi Columbiani—Bartholomew, (5,324 specimens). Other important collections received during the year are: the Nuttall, the Knopf and the Millspaugh Santa Catalina plants (1,960); the Heller California and Oregon plants (517); Britton and Cowell Cuban plants (183); Britton, Britton and Hazen, Trinidad plants (148); Buchtien Bolivian plants (472); and the Maxon and Killip Jamaican collections (1,276). The regional distribution of fully organized material is shown in the following table. The tabulation includes only such areas as have been augmented in 1921, and in nowise represents the entire herbarium.

Locality	Added this Year	Total in Her- barium	Locality	Added this Year	Total in Her- barium
NORTH AMERICA			Alberta	5	1,278
Alaska	6	129	British Columbia.....	15	1,501
Baranoff Island	1	15	New Brunswick.....	3	799

Locality	Added this Year	Total in Herbarium	Locality	Added this Year	Total in Herbarium
NORTH AMERICA:			Wisconsin	214	5,280
Newfoundland	16	782	Wyoming	123	1,701
Nova Scotia	12	439	BAHAMA:		
Ontario	692	2,401	Frozen Cay	1	26
Quebec	5	1,151	WEST INDIES:		
UNITED STATES:			Cuba	205	11,174
Alabama	75	1,577	Isle of Pines.....	2	1,268
Arizona	3	8,224	Dominica	1	99
Arkansas	124	589	Jamaica	1,337	9,032
California	323	26,450	Porto Rico.....	7	4,739
San Clemente Island	4	5	Tobago	54	883
San Nicholas Island	2	2	Tortola	46	79
Santa Catalina			Virgin Gorda	1	6
Island	2,640	2,023	Mexico	195	31,800
Santa Cruz Island..	2	73	Coronados Islands...	12	29
Carolina, North.....	45	4,799	Magdalena Island...	1	34
Carolina, South	12	1,115	CENTRAL AMERICA:		
Colorado	358	12,943	Honduras	3	276
Connecticut	52	744	Nicaragua	147	239
Dakota, North.....	13	664	SOUTH AMERICA:		
Dakota, South.....	34	1,883	Argentina	5	1,373
Delaware	37	1,375	Bolivia	472	4,396
District of Columbia	23	2,735	Brazil	127	723
Florida	64	20,469	Chile	4	259
Georgia	11	4,011	Colombia	33	2,971
Idaho	32	3,687	Trinidad, Island	149	643
Illinois	274	28,736	Uruguay	2	170
Indiana	69	7,012	Venezuela	2	710
Iowa	109	1,042	Curacao	1	101
Kansas	755	1,306	EUROPE:		
Kentucky	24	1,397	Austria-Hungary ...	159	7,955
Louisiana	57	1,395	Belgium	54	397
Maine	19	1,376	Denmark	2	383
Maryland	72	1,729	England	8	2,548
Massachusetts	209	5,566	Finland	60	120
Michigan	54	3,967	France	35	8,410
Isle Royal	9	10	Germany	553	9,270
Mackinac Island...	1	155	Holland	8	22
Minnesota	16	2,385	Italy	68	3,578
Mississippi	91	2,683	Norway	6	1,219
Missouri	244	4,216	Madeira Island	5	107
Montana	155	4,216	Portugal	65	96
Nebraska	565	1,061	Sardinia	13	33
Nevada	6	1,314	Sweden	22	9,786
New Hampshire.....	19	1,610	Switzerland	167	3,884
New Jersey	500	3,579	Turkey	1	21
New Mexico.....	10	3,850	ASIA:		
New York.....	257	7,807	Bengal	1	2
Ohio	85	2,161	India	2	1,073
Oklahoma	28	324	Palestine	3	1,149
Oregon	29	9,015	Persia	6	50
Pennsylvania	94	10,270	Siberia	3	472
Tennessee	6	1,378	Syria	2	465
Texas	133	10,027	Turkey	4	25
Utah	66	4,099			
Vermont	56	3,679			
Virginia	39	4,875			
Washington	255	7,766			
West Virginia.....	147	2,189			

	Added this Year	Total in Her- barium		Added this Year	Total in Her- barium
AFRICA:					
Algeria	1	565	AUSTRALIA:	1	2,237
British East Africa..	8	131	New South Wales...	6	728
Cape	70	1,788	Victoria	2	436
Mozambique	17	24	OCEANIA:		
MALAYA:					
Borneo, North	56	66	Samoa	1	68

The Department of Geology has been the recipient of an unusually large number of accessions during the year, nearly all being gifts. The continued interest of Mr. W. J. Chalmers has been evinced by his gift of a fine series of moss agates from Montana showing remarkable landscape effects, and the addition of sixteen specimens, a number of which are of high gem quality, to the crystal collection. These specimens include crystals of beryl from Brazil, tourmaline from Maine, tourmaline and kunzite from Madagascar, and quartz from Japan. Another addition to the gem collection was received from Ezra C. Knopf, who gave twenty-four specimens of rough and cut catalinite which provide a good representation of this semi-precious stone. A collection of over three thousand specimens of invertebrate fossils, besides some minerals, was presented by Mr. J. C. Langtry. This collection was gathered by the late C. B. Dyer, a well-known paleontologist, and is particularly notable for the large variety of specimens in it and the careful preparation of each. Besides representatives of several hundred species, the collection contains two paratypes. The material constituting the collection was gathered chiefly in Ohio, but other districts are represented. The collection includes a number of beautifully preserved specimens of crinoids and trilobites well adapted for exhibition, and all of the material is so well worked out that it will lend itself readily to further study. A number of specimens of minerals from localities now exhausted is another valuable feature. A fine series of fossil plants, containing representatives of nineteen species from Eocene beds of Louisiana and Texas, was presented by Prof. O. M. Ball of the Agricultural and Mechanical College of Texas. The excellent state of preservation of these fossils and the care with which they had been prepared, mounted and named by Prof. Ball gave especial value to the gift, both for the purposes of exhibition and study. The Standard Oil Company of Indiana kindly presented a collection of 168 specimens illustrating uses of petroleum wax, which shows many interesting and important substances derived from this product. This company also provided a large floor case built according to the Museum standard

design for the installment of further illustrative material which will be supplied later. A series of specimens of fuller's earths used in the clarification of oils was also presented by this company. A life-sized bust in bronze of the late Director, Frederick J. V. Skiff, was presented by Mrs. Skiff. This bust, the work of the well-known sculptor, Henry Hering, is an excellent likeness of the late, lamented Director. A number of exhibitors at the meeting of the American Mining Congress held in Chicago in October kindly gave valuable specimens from their exhibits. Among these may be mentioned thirty-four specimens of peat products presented by F. A. Wildes, State Superintendent of Mines, Minnesota; thirteen specimens of oil shales from various localities, donated by the United States Bureau of Mines; forty-five specimens of ores of Alaska presented by the Alaska Commission and John Ronan; and a number of specimens of coal and other minerals from Colorado, given by the Colorado State Bureau of Mines. A collection of 218 specimens representing important minerals and ores of the mining districts of New Mexico was received through the generosity of Mr. B. C. Gilbert. He had previously devoted several weeks to collecting in several of the localities represented. Especially new and important among these were a series of radium ores, used as a source of radium in therapeutic treatments; also fine specimens of turquoise, chalcotrichite, halotrichite and other minerals. The assistance of the Grant County Chamber of Commerce through its Secretary, Mr. Burton Bunch, in this connection is also gratefully acknowledged. Three specimens of radium ores accompanied by descriptive matter were given by the Radium Information Service, and some large showy specimens of arsenic ores and some excellent specimens of metallic arsenic were presented by Mariner and Hoskins.

Accessions during the year in the Department of Zoölogy consisted chiefly of gifts, although a number of fishes and reptiles were purchased, chiefly in the local markets. Noteworthy among the gifts was a collection of fifty-eight mounted birds and mammals received by bequest from the estate of Mrs. Katherine Rowe of Chicago. This collection contains a large number of interesting albinos and birds of abnormal coloration collected by Mr. Nicholas Rowe during a period of years in which, as editor and proprietor of the sportsman's journal, "American Field," he had especial opportunities to secure such material. Another important collection of albinos, consisting of forty-three birds and one mammal, was the gift of Mr.

Ruthven Deane of Chicago. This collection includes many specimens which have been described and recorded in ornithological journals, and it is, therefore, of considerable historical interest. The addition of these two collections to those previously possessed by the Museum makes its collections of albinotic birds one of the largest, if not the largest, in America. In the Division of Mammals, the most important accessions were two Canadian mountain sheep presented by Mr. H. B. Conover, of Chicago, and twenty skulls and horns of South African game animals presented by Mr. A. A. Davidson, also of Chicago. A novel and valuable gift of three animal groups done in bronze by Carl Akeley was presented by President Field. The subjects of these bronzes are: "The Charging Herd," representing a herd of wild elephants; "The Wounded Comrade," showing a wounded elephant being supported and assisted by two of his mates; and "Lion and Buffalo," showing a bull buffalo attacked by a lion. The Division of Insects received the welcome donation of 131 specimens of named, Florida dragon-flies, collected and presented by Mr. J. Williamson of Bluffton, Indiana. Dr. Sven Narbo kindly volunteered to collect insects in the vicinity of Stavanger, Norway, and has, so far, donated over 100 desirable specimens of various orders. The total number of accessions is 1,369, distributed as follows: Mammals, 75; Birds, 104; Birds' eggs, 4; Fishes, 54; Reptiles and Batrachians, 278; and Insects, 854.

INSTALLATION, REARRANGEMENT, AND PERMANENT IMPROVEMENT. —A total of 158 exhibition cases was newly installed in the Department of Anthropology during the year, and 478 cases were re-installed with numerous changes and improvements, making a total of 636. The total number of cases now on exhibition in this Department is 702, distributed as follows: Stanley Field Hall, 12; Edward E. Ayer Hall, 62; Mary D. Sturges Hall, 42; Hall 4, 43; Hall 5, 54; Hall 6, 50; Hall 7, 50; Hall 8, 61; Hall 9, 58; Joseph N. Field Hall, 103; Hall 23, 8; Hall 24, 80; Hall 32, 79; Hall 33, 1; Gem Room, 9. The plans, as mapped out in the old building were generally adhered to, and the installation was complete on the day of the reopening of the Museum, May 2. Higinbotham Hall, opened June 6, contains nine wall cases, showing Egyptian, Syrian and Algerian jewelry, gold and silver jewelry of India, and prehistoric American gold ornaments. On July 18, Hall 23 was thrown open to the public. In this room are shown Chinese maps, tapestries, and screens obtained by the Blackstone Expedition, and two long painted scrolls, presented in 1912 by the Tuesday Art

and Travel Club of Chicago. Three of the maps were actually printed in 1461, thirty years before the discovery of America. One, a general map of China, drawn to an exact scale, is a rubbing taken from an engraved stone tablet erected in A.D. 1136, and preserved in the Museum of Inscriptions at Si-an fu, Shen-si Province. The Eighteen Arhat, disciples of Buddha, crossing the sea, form the subject of an excellent example of silk tapestry woven in the eighteenth century. The notable achievements of the Chinese in inlaid feather-work are represented by a screen of twelve panels, each of which is adorned with a floral composition, symbolic of a month of the year, the chief decorations being formed by the bright blue feathers of the kingfisher. The two paintings are masterpieces of the Sung period (twelfth century), one illustrating the occupations, games, and pastimes of boys; the other (27 feet long) showing the life of a mediæval town with its busy streets and traffic on land and water. The 360 Japanese Surimono have been divided into four separate series to be shown in rotation. Each group is to remain on view for a period of two months. The first comprises examples of the work by the well-known artist, Hokusai, and his pupils. The second aims to illustrate the New Year's festival, as well as the games and pastimes of the people. In the third are associated those prints depicting Japanese mythology, the pantheon of the gods and heroes. The fourth series contains prints featuring domestic architecture, the house and its furniture, so that an important phase of Japanese life is brought out by each exhibit. Frank W. Gunsaulus Hall was opened on the 2nd of May, showing the work of Hokusai and the painted Tosa screen, presented to the Museum by the late Dr. Gunsaulus in 1919. Only two groups of Surimono have so far been placed on view, as the condition of the walls made the closing of Gunsaulus Hall necessary toward the middle of October. The Tinguian village group in Hall 9 has just been supplemented and completed by the addition of 206 new figures and other accessories, modeled by J. G. Prasuhn. The model is intended to show the life of a Tinguian village on a summer morning. About the houses the women are busily engaged in pounding out rice, preparing and spinning cotton, and making baskets; others are at the spring, filling their jars with water or washing clothes, while one is removing rice from the granary. Beneath one house a family group is engaged in stripping tobacco, a load of which is just being brought into the settlement by means of a carabao and sled. An old man is repairing a harrow, while a companion just from the field sits by to watch and talk. The miniature furnishings of the houses, and the various ani-

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A COMPLETE FLOWERING AND FRUITING TOP OF THE COCONUT PALM.
Reproduced under the Mrs. Stanley Field Plant Reproduction Fund.

mals scattered about the scene, give a very realistic atmosphere to it. Plans for the arrangement of storage material on the third floor were drawn up last May. Storage cases were set up in the work rooms opposite the offices of the assistant curators, and storage racks were built in rooms 29-31, 33, 34, 36, 55, 65 and 66, set aside for this purpose. The unpacking, shifting, sorting and permanent placing of this material absorbed the attention of the Department for six months. The assignment of the rooms is as follows: room 28, exchange collections; room 29, pottery of Southwest North America; room 30, South America; rooms 31 and 33, India, Ceylon, Burma and Siam; room 34, Borneo, Java; room 36, Philippines; room 55, Melanesia; room 65, Tibet; and room 66, China. Two special cabinets were made for the safe keeping of Chinese and Tibetan scrolls. Two screen carriers for four-foot cases and eight lay-out tables were made for the purpose of installation. The Japanese sword-guards, not utilized for exhibition purposes, have been arranged in a cabinet to serve as a study collection. The office of the Assistant Curator of Malayan Ethnology was transferred from room 36 to room 43, room 36 being utilized for storage purposes. The 170 exhibition cases, which in the beginning of the year were stored in the Boat Hall on the ground floor, were transferred to the fourth floor. It is gratifying to record that the methods of exhibition and labeling have met with universal approval, and that wide use has been made of the collections for both study and practical purposes.

Progress and achievement in the Department of Botany during the past year has been more than ordinarily satisfactory. The comfort, convenience and facilities of the offices and work rooms in the new building have rendered the efforts of the staff more efficient than could possibly have resulted in the old. The first four months of the year were devoted entirely to the arrangement, reinstallation and completion of the case installations after having been packed and moved. During this work a number of the case units were entirely readjusted and many new specimens added. Two cases were installed in Stanley Field Hall, as indexes to the character of the installations in the department itself. For these a number of elements were specially prepared: for the case illustrating plant life a delicate model of the flowers of Sugar Cane was executed and for the plant economics case two branches of resin producing plants were added to the typical specimens of rare and attractive amber-like gums. Since the opening of the Museum building to the public the following new installations have been added to those which were already in place in Hall 28—the

Hall of Plant Life: four units illustrating the more important cereal grasses; one in further addition to the Palm Family; a double unit was installed with a life-size reproduction of the flowering and fruiting top of a Coconut Palm, showing the succession of flowers and fruits from the unopened flower bud through clusters in all stages and development to the mature fruit. A unit was installed illustrating the characteristics of the Dogwood Family, including a complete, natural-size branch of the Flowering Dog-wood in full flower and young leaf. Several interesting plaques were added to the cases of micro-plants devoted to the green Algae; four stages illustrating the development of *Ulothrix* through "swarm-spores"; eight stages of sexual and asexual reproduction of *Oedogonium*; and enlarged models of Botrydium, Bryopsis, Caulerpa, Halimeda and Vaucheria. All of the installations indicated above were of studies produced in the Sara C. Field Laboratories of the Department. In Hall 27 a central trophy installation has been made of a trunk of the California Redwood, eight feet, ten inches in diameter, this diameter being half the average growth of the species. In this hall all the tree trunks are in this ratio, therefore, this "trophy" serves as an index of comparison for all other trees therein installed. Work, preparatory to further installations, is well under way, consisting mainly of a life-size plant of the Florida Coontie, *Zamia floridana*, and a sporophyll of the "Easter Palm", *Cycas circinalis*, to typify the Cycad Family; a full size Pine-apple Plant in flower and young fruit, to represent the Bromelia Family; a flower head of the Screw-pine indicative of the peculiar Pandanus Family, and a series of enlarged glass models revealing the characteristic forms of various useful fibers such as Cotton, Flax, Ramie, Hemp, etc. To accompany the Redwood in Hall 27 a transverse "wheel" section and a large plank of the tree are nearly finished for installation. Preparatory to the issuance of a Guide or Handbook to the Department, all of the exhibit cases have been renumbered in such a way that no confusion in reference is possible and the storage lockers, containing study material, are rapidly being organized to agree with the new rearrangement of the cases. The new quarters of the Sara C. Field Laboratories Plant Reproduction Section have received material re-fitting and are being rapidly equipped to increase production of studies in plant life. The Section now occupies eight rooms on the third floor, each devoted to a special phase of work; from the Biologist's Laboratory through the Glass Worker's Shop to that in which the Assemblers complete the preparations for the Exhibit Halls. The Departmental Library room has been fitted with

cases and made ready for the permanent arrangement of its volumes and pamphlets. The four Herbarium rooms are being installed as fast as cases can be obtained. The main, or Flowering Plant Herbarium, is fully organized and open for reference.

During the early part of the year the attention of the Department of Geology was devoted chiefly to completing the installation of halls or parts of halls which had not been worked upon up to that time in order that the entire exhibition series of the Department might present a finished appearance upon the opening day. It is gratifying to report that by devoted labor on the part of the staff, including considerable overtime work, this result was accomplished. In Stanley Field Hall two wall cases and two floor cases were installed. Of these, one of the floor cases is devoted to the large Quinn Canyon meteorite, and the other to representative specimens of fossils. In one of the wall cases there was installed a collection of different varieties of quartz and in the other a collection of metalliferous minerals. In the upper part of the wall cases the specimens are installed on individual blocks fastened to the backs of the cases and these blocks also serve as supports for the labels. In the other cases, pedestals or the case floors serve as mounts. New bases carefully designed to bear the weight of the specimens and at the same time present a finished appearance, were built for two large glacial slabs in Hall 34 and the specimens installed upon them. New specimens received during the year for the Chalmers crystal collection in the same hall were placed on exhibition in the cases containing that collection and the entire collection rearranged and to some extent remounted. The collection of radium-bearing minerals shown in this hall was enlarged, rearranged and relabeled. In Hall 35, 16 tables 14 feet long and from 5 to 7 feet wide, constructed in the Museum, were placed in the west half of the hall in alcove positions. On these 53 relief maps were installed, the maps being grouped in such a manner that neighboring localities or similar physiographic types are associated in position. Two tables of smaller size at the end of the hall are used to display rainfall and glacial maps of the United States. The model of the Virginia Natural Bridge was placed in the center of the hall. Eleven maps which had not been previously framed or glazed were provided with this protection and all the maps exhibited are now safe-guarded in this manner from dust or other injury. Eight upright cases containing collections illustrating various features of physical geology were installed in the eastern end of the hall. Two of these cases are devoted to volcanic phe-

nomena, lavas, ashes, tuffs and other products of typical volcanoes being shown. In another case, cave formations, such as stalactites, stalagmites and gypsum growths from various caves are installed, care having been taken to mount each specimen in a natural position. Rock slabs showing ripple-marked and mud-cracked surfaces occupy another case, while specimens illustrating faulting and folding, joints, veins, dikes, various rock textures and dendrites occupy four other cases. The gypsum cave from Utah and the large fulgurite are also installed in this hall. The installation of Hall 36 was completed along the lines indicated in the report of last year. To the petroleum collection, which occupies the east end of the hall, considerable new material acquired during the year was added, the most important increment being a series of specimens illustrating the uses of paraffin, presented by the Standard Oil Co. (Indiana). These specimens include many bright-colored objects which relieve the somewhat somber effect of some of the other exhibits in the hall. The model of the original Standard Oil refinery at Cleveland was thoroughly renovated and installed in an individual case in an alcove adjoining the petroleum collection and the large section of an Australian coal seam was provided with a new case, the base was newly finished and it was placed near the north entrance of the hall. A model of a coal mine, showing the laying out of a mine and the extraction of the coal by the panel-retreating system, was placed near this. A model illustrating the formation of peat in a glacial lake was installed adjoining the peat exhibit. In the western half of the hall there have been installed in table cases the soil and clay collections and several minor collections, such as those of fuller's earths, mineral soaps, sands and mineral pigments. Much of this material had been withdrawn for years from exhibition on account of lack of space and the opportunity to exhibit it was, therefore, welcomed. The U. S. Department of Agriculture's official classification of soils is represented by a series of specimens received from that Department. They are shown in glass jars which fill part of an upright case. Other specimens of soils, arranged according to the better-known, ordinary groupings of loams, marls, etc., occupy four table cases, where they are displayed in shallow trays. Another table case contains groups of specimens which illustrate modes of formation of soils, compositions of soils and plant foods in soils. The largest collection in this part of the hall is the clay collection, which requires for its display thirteen table cases. These are arranged in twenty eight groups according to Orton's classification, the installation being as follows: Along the south wall a line of four

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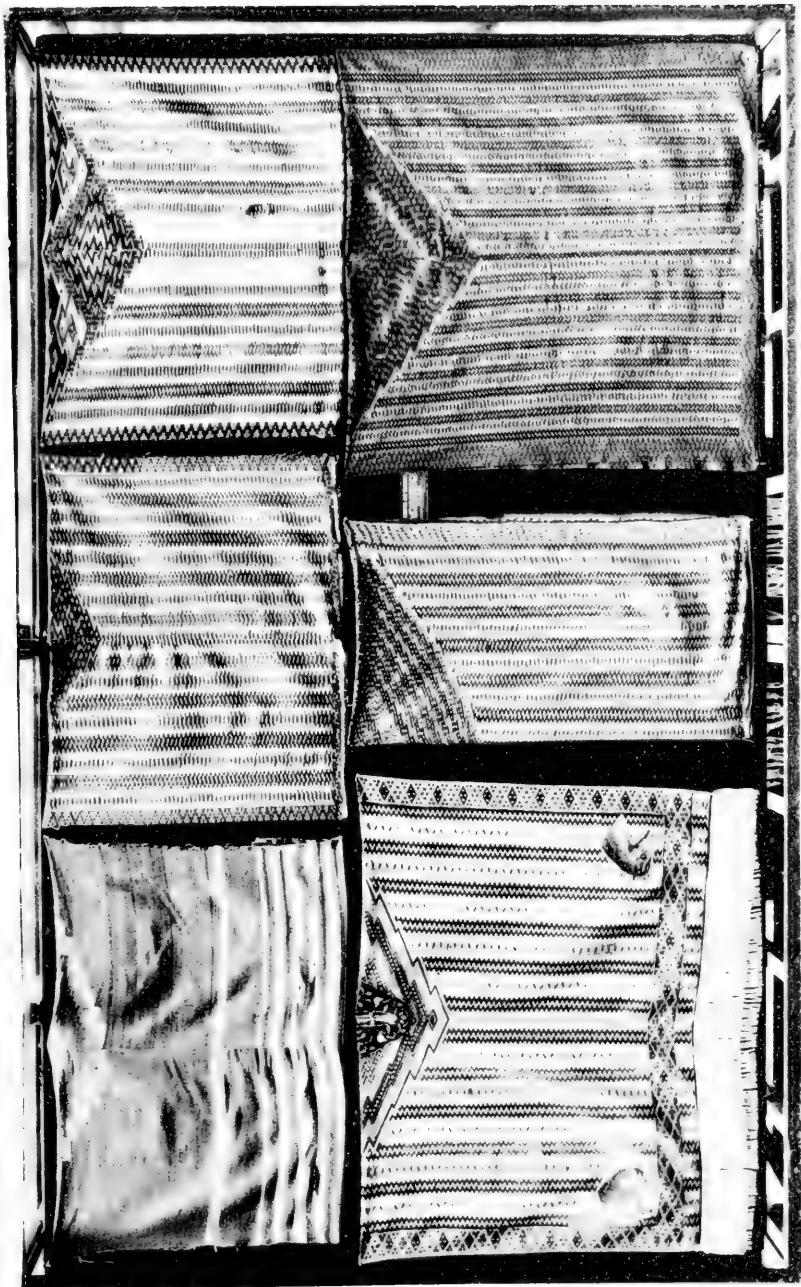
cases contains a synoptic collection which illustrates the group and serves as a key to the larger collection. The nature, origin and general character of the clays of each group are shown by labels and the relations of the groups to each other are indicated by diagrams painted on the floors of the cases, the lines of which connect with each specimen in such a manner as to make its relations to the other specimens evident. Numerous specimens of each group of clays are shown in eight adjoining cases. A briquette burned from the same clay as the specimen is frequently installed with the specimen in order to show the character of the material in its most used form. While the number of clay deposits is so great that anything like a complete collection is both impossible and undesirable, enough members of each group are shown to illustrate the great variety in character which different deposits of this useful substance assume. A collection illustrating the different effects obtained by variations in the methods of burning clay, which was received during the year, has also been installed here. Several groups of specimens also illustrate the effect of various impurities and minor components of clay upon its character when burned, while the use of clay in pottery is illustrated by a series showing stages in the manufacture of Japanese pottery. Other cases in the hall contain collections of other earthy substances of economic interest. Thus a collection of natural and Portland cements fills half of one case and a collection of fuller's earths the other half. Another case contains a collection of various kinds of sands of industrial importance, such as molding and glass sands. Uses of silica in its various forms are illustrated synoptically in another case. Earthy pigments, including ochers and allied paint substances, occupy an upright case. Two square, upright cases contain large specimens of iron ore and fluorite and a large model of the Chandler iron mine has been installed at the west end of the hall. This model, before installation, was thoroughly renovated, missing timbering restored, a new head frame built and the whole model repainted. The installation of Skiff Hall had been practically completed in 1920, but a few remaining details, such as the installation of miscellaneous labels and readjustment of the fastenings of the cases were accomplished during the past year. Some specimens received during the year were also installed among their respective groups. A mahogany pedestal was prepared for the bust of Dr. Skiff presented by Mrs. Skiff, and the bust, on this pedestal, was installed in the center of the hall. Installation of Higinbotham Hall was delayed about a month beyond that of the rest of the Museum, but owing to the isolated position of this hall, no inconvenience

resulted. The collection of gems was installed in five floor cases in this hall, the cases being first newly lined with silk, all glass carefully cleaned and all woodwork refinished. New silk mounts for the individual specimens were provided throughout, 760 mounts being used for this purpose. The mounts were also newly labeled and new labels were provided for the unmounted specimens. To the collection as previously exhibited, there was added the collection illustrating folklore of gems and that of models of historic diamonds. The hall was opened to the public on June 6. Installation in Hall 38 was chiefly confined to mounting and placing the large specimens belonging in the hall, although some case exhibits were completed, notably those of the Minooka Mastodons and the Asphaltum Beds fossils. Among the large objects installed, the fore leg of the dinosaur *Morosaurus* was mounted on its former base and missing parts of the foot restored in such a manner as to agree with present knowledge of the structure of this animal. A hind leg of the dinosaur *Camarasaurus* was remounted so that it would stand alone, instead of being partly supported by a wall as it had been as previously exhibited. These two limbs were placed on either side of an entrance to the hall, corresponding in position to the place of their period in geological time. The mounting of the skeleton of the large dinosaur, *Apatasaurus*, proved a task of considerable magnitude, but by industrious effort, was carried to completion before the opening day. Although, on the whole, as a result of careful packing, the specimen stood the jar and jolt of moving well, some breaks occurred which required repair. Among the parts which had suffered injury were some of the vertebral processes and some of the ribs and legs and pelvic bones. Much of this failure was due to the fact that the plaster used as a cement in preparing the bones had, after twenty years, become weakened and brittle. Hence a thorough recementing and refinishing of many of the bones had to be accomplished before they could be placed in position. Another difficulty in mounting was due to the fact that the height of the specimen brought it so near the ceiling that ordinary hoisting apparatus could not be employed. All these difficulties were gradually overcome, however, and an excellent mounting of the specimen accomplished. After erection of the specimen, the base on which it was mounted was carefully refinished, the metal framework repainted and a protective railing fastened about it. The mount is placed at about the center of the hall, this corresponding to its place in geologic time. At the north end of the hall a number of large mounts of fossil animals of the Pleistocene period were installed. These include a skeleton of the Mastodon, a Mastodon and a Mammoth skull, casts of *Megatherium* and *Glyp-*

todon and a restoration of the Moa. The Mastodon skeleton, which had been disarticulated for moving, was reassembled and, in remounting, some modifications were made. The tusks were reset so that instead of curving outward as formerly, they were given a position similar to that common to other members of the elephant family. Some additional supports were provided for other parts, and the entire skeleton was also cleaned and treated with shellac for the purpose of further hardening and preserving the bones. The base supporting the skeleton was refinished and all metal supports repainted. Adjoining this was placed the skull of the Yorkville Mastodon previously exhibited and a skull of the northern Mammoth, which had not been before on exhibition. The latter specimen, obtained from Wood-chopper Creek, Alaska, where it had been found in gold mining at a depth of one hundred feet, was complete and in good preservation except for one tusk. From the preserved tusk another was modeled, a base was constructed and an excellent mount thus obtained. The cast of Megatherium, which had been taken apart for moving, was, before mounting, joined together, several parts which had been broken for disjoining were restored and the whole cleaned, coated with shellac and recolored. The base was also thoroughly refinished. In the central isle of the hall the skeleton of the extinct Irish deer, after reassembling and cleaning was installed, as was also a cast of the skull and tusks of the elephantine genus, Stegodon, which had not been exhibited for several years on account of lack of space. This cast was thoroughly renovated before installation and mounted on a base remodeled from a previous use. Some renovations and repairs were also performed on other large mounts in the hall, such as those of the fossil turtle, Colossochelys, the jaws of the shark, Carcharodon, and the cast of the skull of Dinotherium. In the paleontological laboratory attention was chiefly devoted during the latter part of the year to preparation for exhibition of the skeleton of the Columbian Mammoth presented some years ago by Mr. George Manierre. It was deemed desirable to reconstruct the mounting of the skeleton so that a more nearly normal position would be presented and to improve the preparation of the parts. Several coats of paint with which the bones had previously been invested were removed by means of various solvents and tools and some hardening treatments were given the parts, especially the excellent tusk. The skull of a modern elephant which had previously been used in mounting the specimen was discarded and a newly modeled one based on careful studies of a more closely allied form supplied. Nine dorsal and three

caudal vertebrae were also similarly supplied by modelling from corresponding forms. The work of reconstruction of this skeleton is still in progress but it is hoped to have it soon completed. A splendid pair of lower jaws of the Columbian Mammoth which was included with the gift was prepared and placed on exhibition in a case with other bones of the Mammoth. Owing to other demands, but little time has been available for work upon the study collections, but opportunity was found to unpack and install in drawers the systematic lithological study collection numbering 1305 specimens, and the collection of rocks of Lake Superior numbering 87 specimens. Labels were installed with the specimens and easy accessibility of the collections provided. The study collections in vertebrate paleontology have also been largely unpacked and distributed in trays or upon shelves, though the complete organization of this series has not yet been accomplished.

Reinstallation of the exhibits in the Department of Zoölogy continued from January until the opening of the Museum, the entire staff being engaged in this work continuously. The greatest physical task was presented by the large habitat groups of birds and mammals. These had been entirely dismantled for moving and, although such accessories as leaves and flowers had been carefully preserved, they were frequently dissociated and required skillful reassembling. The actual groundwork of these cases was inevitably destroyed or so altered that in most cases it was necessary to resurface it. The snow scenes, such as those in the Polar Bear, Musk Ox, and several bird groups, suffered especially and were completely redone. The groups of African game animals, the Deer group, and others had been photographed from various angles and these photographs served as guides in reinstalling the scenes in their original form. The work was accomplished expeditiously and successfully at the expense of much time and labor on the part of the taxidermists. New labels were written and printed for all the larger groups and for much other material. Owing to the lack of space in any one hall for the entire systematic exhibit of mammals, this exhibit was divided by placing the so-called "horned and hoofed" mammals in Pullman Hall and other mammals, from marsupials to apes and monkeys, in the adjoining Hall 15. From May until December unsettled conditions prevented continuous work on new exhibits of mammals and birds, but so far as possible the taxidermists have modeled and prepared manikins for the group of Olympic Elk and have repaired and remounted birds for the systematic exhibit. For Stanley Field Hall, three new groups were prepared and installed. One of these shows a



SERAPES AND BLANKETS, NORTHERN MEXICO.
Showing Method of Screen Installation (Case 1, Hall 8).

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Red Fox in a woodland setting pausing before a log and listening to several mice which are quarreling beneath it. Another shows a winter scene with a Horned Owl pouncing upon a rabbit and a third displays various species of Birds of Paradise. Although considerable preparation had been made before removal from the old building, it was found necessary in installing the exhibit of fishes to make what was practically a new exhibit with almost complete rearrangement. Much of the material was poorly mounted or poorly colored after mounting. Some of this was discarded and the rest repaired and refinished. After the opening of the Museum, work was continued on the fish exhibit and altogether thirty new mounts have been prepared, twenty-eight repaired or remade, and thirty-eight casts made and colored. In this work a new method was employed to a large extent involving the use of a cast of the body of the fish combined with the real fin and tail. This method has proved expeditious and has given very satisfactory results in all cases where fresh specimens have been available for use as models. The reptile exhibit, which had never been large was reduced by the elimination of imperfect and unworthy specimens to a total of three cases. In one is a single large alligator; another is devoted principally to turtles; and the third contains miscellaneous snakes and lizards. Preparations have been made for the improvement of this exhibit and a number of additional specimens have been prepared. Many snakes and nearly all frogs cannot be prepared satisfactorily by the usual methods and the specimens heretofore shown have been far from pleasing or realistic. To overcome this the taxidermist has perfected a method by which these animals may be reproduced in celluloid so as to give an exceedingly lifelike appearance, far superior to anything accomplished by previous methods. Work has already been completed on models of two frogs, one soft-shelled turtle, and four snakes and progress made on a number of others. During the first half of the year the Associate Curator was occupied continuously with the tedious and exacting task of reinstalling the exhibit of invertebrates, including the very large collection of shells, some 1,200 units of which were provided with new labels. For Stanley Field Hall, a new installation was prepared in a wall case showing some of the more interesting invertebrates, such as sponges, jelly-fishes, corals, star-fishes, sea-urchins, and a series of beautiful and useful shells. Later in the year considerable time was devoted to finishing a new case containing two habitat groups of insects. One of these groups represents a scene in the dune region near Miller, Indiana, and shows the characteristic insects of that region. The other illus-

trates, by means of wax accessories and a tinted, bromide enlargement, the destructive work and the various stages of growth of the well-known tomato worm moth. After this case was finished, work was begun with a view to condensing the shell exhibit by the careful elimination of duplicates. Progress thus far indicates that a fifty per cent condensation is feasible without loss of effect. In the Division of Osteology, prior to actual reinstallation, there was a considerable period of unpacking, cleaning, mending and remounting of the large skeletons, such as those of the whales, elephants, and other large mammals. These were then installed in open stands in the hall assigned to them and a certain number, for lack of space, were consigned to storage. Similar work proceeded with small and medium-sized skeletons and these were installed on shelves in closed cases. In the latter part of the year the skeleton of a large adult Chimpanzee was remounted to replace an immature example, about 150 skulls were cleaned, and a beginning was made in the work of unpacking, classifying, and labeling the small unmounted ligamentary skeletons of the reference collection in comparative osteology. The reference collection of fishes and reptiles was placed on shelves and a beginning made toward getting the material into well classified and accessible condition.

EXPEDITIONS.—Under the patronage of Mr. William J. Wrigley, Jr., the Curator of the Department of Botany visited the Gray Herbarium, Harvard, the New York Botanical Garden, and the United States National Herbarium at Washington, for the purpose of studying the older collections from Santa Catalina Island, California. He was accorded the privilege of examining the material in each institution and amassed data that will materially aid in the preparation of a Flora of the island. The Curator also made two trips to Geneseo, Illinois, during which he packed the complete Harper Herbarium for shipment to the Museum; and a trip to Pharr, Louisiana, where he secured a complete series of specimens for installation, representing the production of cane sugar through all steps in its extraction and crystallization.

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION OF FIELD MUSEUM OF NATURAL HISTORY.—Sixteen cases were prepared during the past year and listed with those already available for loaning to the public schools. With the addition of these cases a total of 693 has been reached. The resignation of the chief taxidermist created conditions that were, for the greater part of the year, unfavorable to a larger production of cases. Though

the department was fortunate in securing the services of a former assistant, his work was not of a wholly productive nature owing to the many demands made upon his time by the repairs that were necessary to entomological specimens and to group accessories. Several conferences were held with Mr. Dudley Grant Hays, Director of Visual Instruction in the public schools, for the purpose of discussing the system of loaning cases to the schools and of the study of them while there. On Mr. Hays' recommendation, a list of case subjects available for school use was placed on file in the office of each principal where it could be consulted by the teachers with a view to making selections which would correlate certain lessons. He also sent to all public schools and branches a bulletin containing directions for reaching the Museum, rules of admission to it, references to lunches and lunch room, and requests to teachers as to the care of loan cases. In many other helpful ways, Mr. Hays has taken active part. The new chassis purchased during the school vacation and fitted to the old, but repaired and repainted delivery truck body, is better suited for the purposes of this department than the former one. With it, it has been possible to maintain a school day schedule since the beginning of its service. This schedule consists of collections of cases from ten schools and the delivery of them to the same number of schools. With the former chassis only eight collections and deliveries could be made. The addition of thirty-two more schools to the previous schedule demanded this increased daily service. With this addition a total number of 320 schools is listed to receive the cases. Additional visits of inspection and inquiry were made by members of the bureau of exhibits of the United States Department of Agriculture. Desirous of having in Pittsburgh a circulating system of loan cases similar to the Harris Extension, Mr. John A. Hollinger, Director of Visual Instruction in the public schools of that city visited the Chicago public schools for the purpose of getting first hand information as to the utilization of the cases of this department and the benefit derived from them. He also sought information of this department concerning its methods of preparing and circulating its cases. Upon request twenty-five cases were loaned at one time to the Washburne Continuation School for its course during July and August. The three classes of students in this school are: the disabled soldiers assigned to it by the Federal Board of Vocational Education; apprentices in different trades; and the fourteen to sixteen year old working boys who are required to attend school eight hours a week. In connection with the loan of the cases to this school, Mr. E. G. Bauman, in charge

wrote: "The fine collection which you kindly sent us early in the summer created so much interest and was of such great value to our continuation schoolboys as to show that the collection was a great educational factor. We hope that you may see your way clear to put our school on the list of those to which collections are sent from time to time." This school has been listed to receive cases. Mr. Paul M. Rea, Director of the Cleveland Museum of Natural History, requested that twelve cases be loaned to the Cleveland School of Education for the purpose of supplementing a course on visual instruction to be given by that institution during this summer term. The request was granted and a selection of the cases was made by Mr. Rea. Several cases were loaned to the Chicago Chapter of the Wild Flower Preservation Society of America for its annual exhibition. A loan of cases was also made to the Conservation Committee of the Second District of the Illinois Federation of Woman's Clubs for its second annual bird-house exhibit.

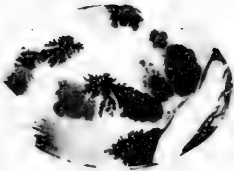
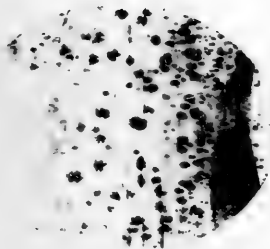
PHOTOGRAPHY AND ILLUSTRATION.—The following is a tabulation of the work performed in this section:

	Number of Lantern Slides Made	Number of Post Cards Made	Number of Negatives Made	Number of Prints Made
General .....	..	32	55	765
Anthropology .....	..	..	169	514
Botany .....	..	..	79	142
Geology .....	..	..	19	58
Zoölogy .....	..	..	26	85
Harris Extension .....	..	..	47	108
Sale	24	..	...	260
Gift	14	..	...	84
Totals	38	32	395	2,016

PRINTING.—The number of labels and other impressions turned out by the Section of Printing for the various departments is as follows:

	Exhibition Labels	Other Impressions
Anthropology	5,037	2,040
Botany	1,777	4,350
Geology	4,049	.....
Zoology	2,917	5,000
Harris Extension	98	950
General	180	37,737
Library .....	....	4,000

ATTENDANCE.—It is gratifying to record the large increase in attendance since the removal of the collections to the new building. During



MOSS AGATES IN HIGINBOTHAM HALL.
Gift of Mr. William J. Chalmers.

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the 241 days from May 2 to December 31, the total admissions were 517,285 of which 425,001 were free and 92,284 were paid admissions, as against 328,321, the best total attendance for any one year in Jackson Park. The most encouraging figures, however, are those of the attendance of public school children, students and teachers. The figures in the period under review show a total attendance of 21,928 as against a best total of 9,118 for any one year in Jackson Park. Details of the attendance record and the receipts from attendance will be found elsewhere in this report.

Herewith are also submitted financial statements, lists of accessions, names of members, etc., etc.

D. C. DAVIES, Director.

STATEMENT OF INCOME AND EXPENSES.

Year Ending December 31, 1921.

INCOME	
Admissions and Check Rooms.....	\$ 22,118.95
Dues of Members.....	530.00
South Park Commissioners.....	26,250.00
Sundry Receipts	1,159.72
General Fund	35,261.55
Endowment Fund—Income	\$134,803.51
Less amount transferred to Sinking Fund for 1921..	5,000.00
	129,803.51
Contribution—Marshall Field	\$215,123.73
	65,000.00
Gross Income	\$280,123.73
EXPENSES	
Salaries	\$102,426.29
Heat, Power and Light	38,109.19
Mechanical Force and Maintenance Supplies.....	57,497.73
General Expense	8,663.86
Guard and Janitor Service	40,567.63
Fire Protection Service	1,942.97
Departmental Installation Supplies	9,515.01
Publications	2,930.80
Printing and Photographic Supplies	1,460.70
	263,114.18
Net Income for Year carried to Capital Account....	\$ 17,009.55

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION.

Statement of Income and Expenses for Year 1921.

INCOME	
Interest and Dividends on Investments.....	\$12,796.66
Less Collection Charges	346.39
	\$12,450.27
Interest on Bank Balances	21.61
Gross Income	\$12,471.88
EXPENSES	
Expense of Distribution of Cases to Public Schools.....	\$2,128.88
General Expense	103.78
Salaries	6,923.32
	9,155.98
Deduction from Income (Depreciation of Automobile Delivery Car)	\$ 3,315.90
	602.24
Balance transferred to Reserve Fund	\$ 2,713.66

FINAL STATEMENT OF COSTS OF REMOVAL OF
MUSEUM FROM JACKSON PARK TO GRANT PARK.

Pittsburgh Plate Glass Company:		
Labor—cost of dismantling glass in large cases, packing and unpacking.....	\$ 6,649.96	
For specially constructed glass boxes....	\$630.72	
Less Salvage	114.66	516.06
		<u>\$ 7,166.02</u>
Fort Dearborn Storage Company:		
Labor—loaders, unloaders and clampers..	\$30,790.81	
Truck hauling contract.....	6,028.59	36,819.40
		<u>36,819.40</u>
Illinois Central Railroad:		
Installation and removal of tracks.....	\$16,988.01	
Hauling 321 cars and demurrage.....	9,904.00	26,892.01
		<u>26,892.01</u>
City of Chicago		
Cost of restoring pavement at 58th Street, etc.		255.67
S. M. Hunter & Company:		
Dismantling large exhibition cases.....		806.10
South Park Commissioners:		
Replacing roadways, sidewalks and re-sodding		1,865.57
Chicago Surface Lines:		
Labor and material—installation of railroad crossing at 58th Street and Stony Island Avenue.....		1,779.03
Miscellaneous contractors:		
Building platforms and runways at Jackson Park, hauling and removing cinders for tracks.....	\$ 3,277.77	
Less Salvage	591.00	2,686.77
		<u>2,686.77</u>
Miscellaneous Items:		
Premiums on bonds.....	\$ 150.00	
Steel plates.....	69.00	
Plate glass insurance—two loads of glass	210.00	
Tarpaulins, wire rope, dollies and accessories	\$913.83	
Less Salvage	130.00	783.83
		<u>783.83</u>
Rent of hoists.....	200.00	
Blue prints, advertising, printing, teaming, plates, etc.	72.00	1,484.83
		<u>1,484.83</u>
Total		<u>\$79,755.40</u>
Cost of packing supplies used during a period of two years prior to moving.....		
		\$ 4,897.52

ATTENDANCE STATISTICS

FROM MAY 2, 1921 TO DECEMBER 31, 1921.

Total Attendance	517,285
Paid Attendance	92,284
Free Admission on Pay Days:	
School Children	16,298
Students	4,857
Teachers	773
Members—Corporate	20
Life	81
Annual	24
Officers' Families	18
Press	33
Special	28
Admission on Free Days:	
Thursdays	87,731
Saturdays	90,341
Sundays	220,744
<hr/>	
Highest Attendance on any day (May 8, 1921).....	28,588
Lowest Attendance on any day (December 16, 1921).....	86
Highest Paid Attendance (September 5, 1921).....	3,831
Average Daily Admissions	2,137
Average Paid Admissions	668
Guides sold	19,194
Articles checked	20,996
Picture Postal Cards sold	300,436

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TYPE OF CASE LOANED BY THE N. W. HARRIS PUBLIC SCHOOL EXTENSION OF FIELD MUSEUM OF NATURAL HISTORY.

ACCESSIONS

DEPARTMENT OF ANTHROPOLOGY

AYER, EDWARD E., Chicago.

1 Navaho blanket—Arizona and New Mexico (gift).

1 carved snow-beater of walrus ivory, 1 beaded buckskin gun-case—Eskimo and Sioux, Alaska and United States (gift).

BABCOCK, FREDERICK R., Wheaton, Illinois.

1 polished stone axe, 1 circumcision flint knife in sheath—Australia (gift).

1 decorated lacquer feast-bowl—Burma (gift).

BODE, MRS., Chicago.

1 metate with two mullers—Mexico (gift).

BRAND, S. H., Chicago.

1 wood-carved figurine of St. Regis Indians—New York State (gift).

BROWN, WILLIAM A.

1 walrus tusk engraved with hunting scenes—Eskimo, Alaska (gift).

CHALMERS, WILLIAM J., Chicago.

1 large cloisonné enameled jar, latter part of fifteenth century—China (gift).

DICKINSON, MR. AND MRS. ROBERT BELVILLE, Chicago.

1 piece of tapa cloth—Suva, Fiji Islands (gift).

DIETERICH, REV. AND MRS. F. W., Nanking, China.

1 woman's hair ornament, 1 silver charm, 1 brass censer with base—China (gift).

EMMONS, LIEUT. G. T., Greenholm, Princeton, New Jersey.

1 wood-carved bark shredder, 1 ladle of musk-ox horn, 1 powder horn—Nishka, Tlingit

and Eskimo, Northwest coast of America and Alaska (exchange).

FIELD MUSEUM OF NATURAL HISTORY.

Purchases:

4 busts and 8 casts of skulls and jaws of prehistoric men, from Professor J. H. McGregor of Columbia University, New York.

1 winter ceremonial robe, 1 sash, 1 winter coat, 1 summer ceremonial fancy robe, 1 sash, 1 striped silk street robe, 1 double sash, 1 crepe undergarment from Miss Michi Sato—Japan.

1 serape (blanket)—Saltillo, Mexico.

1 chief's robe of palm fiber—Basongo tribe, Congo, Africa, from Rev. J. F. Pieters, Springfield, Kentucky.

FLEMING, ROBERT H., Chicago.

45 swords, daggers, and other weapons, 5 embroideries, 2 batiks, 6 sword-guards, 6 albums of color prints and paintings, 16 miscellaneous objects—China, Japan, India, Turkey, North Africa, Java (gift).

FRIESSER, JULIUS, Chicago.

2 pieces of pottery, 1 vessel of carved gourd—Ecuador and British Guiana, South America (gift).

GALLAGHER, J. F., Chicago.

1 grooved stone axe—Hot Springs, Garland County, Arkansas (gift).

GOURLEY, W. J., Chicago.

1 unfinished stone axe—Wauconda, Lake County, Illinois (gift).

- GREENLEE, MRS. RALPH S., Chicago.
1 alabaster model of the Taj Mahal (with glass case and pedestal)—Agra, India (gift).
- GUNSAULUS, MISS HELEN C., Chicago.
360 Japanese surimono (color print cards for special occasions, made between 1780 and 1850)—Japan (gift).
1 comb, 3 hairpins—Japan (gift).
- GUTH, MRS. J., Chicago.
1 brass image of Indian deity—South India (gift).
- HAWDEN, J., Seatonville, Illinois.
1 large grooved axe of grayish rock, Princeton, Illinois (gift).
- JURGUTIS, PAUL
1 basket of Lithuanian type (gift).
- LATHROP, BARBOUR, Chicago.
Ethnographical material, chiefly kris, spears, bows, ornaments, carvings, 97 specimens—Korea, Dutch Indies, and Dutch New Guinea (gift).
- LOVETT, FRANK E., Chicago.
1 model of outrigger canoe, woven grass bag, fly whisk—Philippines, Liberia, China (gift).
- PARSON, L. D., Glen Ellyn, Illinois.
1 painted buffalo skin—Plains Indians, Indian Territory, U. S. (gift).
- PETERS, ROBERT D., Knox, Indiana.
1 grooved stone axe—near Knox, Indiana (gift).
- PERKINS, MRS. E. T., Chicago.
12 old American Indian baskets,
1 band of beadwork—Alaska and California (gift).
- RUMSEY, MRS. MINNIE, Lake Forest, Illinois.
632 printing blocks of Indian sign language, chiefly electrotypes, a few zinc etchings (gift).
- RYERSON, MARTIN A., and SARGENT, HOMER E.
18 serapes—Coahuilla, Sonora, etc., Mexico (gift).
- SARGENT, HOMER E., Pasadena, California.
215 baskets from 23 North American tribes, 1 bear scent carrier of horn (gift).
- SATO, MISS MICHI, Tokyo, Japan.
3 pairs of shoes, 1 pair of clogs, 1 pair of sandals with brocade covering, 1 pair of straw sandals—Japan (gift).
5 switches of Japanese hair—Japan (gift).
- SIMPSON, MRS. WILLIAM, Chicago.
1 large black and white olla—Province Tusayan, Arizona (gift).
- TRAH, HENRY J., Chicago.
1 large grooved axe-head, of grayish igneous rock—Lemont, Illinois (gift).
- WILKINS, MISS HELEN, Chicago.
1 Japanese robe of gray silk, worn during wedding ceremony (gift).
- WILLIAMS, DR. HUGH R., Chicago.
3 stone chisels, 1 grooved axe, 34 stone arrowheads—Prairie du Chien, Wisconsin (gift).

DEPARTMENT OF BOTANY.

- AYER, MRS. EWARD E., Chicago.
1 herbarium specimen—Wisconsin (gift).
- BAILEY, L. H., Ithaca, New York.
1 herbarium specimen—Venezuela (gift).
- BARTHOLOMEW, E., Stockton, Kansas.
3 herbarium specimens—Santa Catalina Island, California (gift).
- BLAKE, DR. S. F., Smithsonian Institution, Washington, D. C.
5 herbarium specimens—Santa Catalina Isl., California (gift).
- BENKE, H. C., North Crystal Lake, Illinois.
1 herbarium specimen—Illinois (gift).

- CANADIAN PACIFIC RAILWAY, Department of Natural Resources, Alberta, Canada.
28 economic specimens, barley, oats, wheat, alfalfa, grass, clover, flax.—Alberta (gift).
- DAHLGREN, B. E., Chicago.
15 economic specimens—various localities (gift).
- DAVIDSON, DR. A., Los Angeles, California.
1 herbarium specimen—Santa Catalina Island, California (gift).
- THE FIBRE PIPE COMPANY, Indianapolis, Indiana.
2 economic specimens Bernice Fibre Pipe—Indiana (gift).
- FIELD MUSEUM OF NATURAL HISTORY.
Collated by B. E. Dahlgren:
1 herbarium specimen.
Purchases:
66 herbarium specimens—Maine.
1 Lycopodium Powder from drug store.
600 fungi specimens—various localities.
517 herbarium specimens—California and Oregon.
1 fungus gall on cedar bark—Wisconsin.
- GRAY HERBARIUM, HARVARD UNIVERSITY, Cambridge, Massachusetts.
1 photographic print of type plant Berlin Herbarium (exchange).
78 herbarium specimens—Nova Scotia (exchange).
- IDAHO AGRICULTURE EXPERIMENT STATION, Aberdeen, Idaho.
17 barley, wheat and oat specimens—Idaho (gift).
- KNOPF, EZRA C., Santa Catalina Island, California.
114 herbarium specimens—Santa Catalina Island, California (gift).
101 herbarium specimens—Santa Catalina Island, California (gift).
99 herbarium specimens—Santa Catalina Island, California (gift).
- MILLSPAUGH, DR. C. F., Chicago.
20 herbarium specimens—Santa Catalina Island, California (gift).
555 herbarium specimens—various localities (gift).
- MOXLEY, GEO, L., Los Angeles, California.
23 herbarium specimens—Santa Catalina Island, California (gift).
- MURRAY, W. H., Norwalk, Ohio.
2 ramie fibre—Ohio (gift).
- NEW YORK BOTANICAL GARDEN, Bronx Park, New York.
1 herbarium specimen—Cuba (exchange).
1 herbarium specimen—Trinidad, W. I. (exchange).
790 herbarium specimens—various localities (exchange).
3 herbarium specimens (gift).
1 fungus—Berry Islands (exchange).
- NUTTALL, L. W., Philipsburg, Pennsylvania.
1250 herbarium specimens—Santa Catalina Island, California (gift).
7 herbarium specimens—Santa Catalina Island, California (gift).
- PLITT, C. C., Baltimore, Maryland.
25 herbarium specimens, lichens—Santa Catalina Island, California (exchange).
- RICE EXPERIMENT STATION, Crowley, Louisiana.
3 economic specimens—Louisiana (gift).
- SHERFF, EARL E., Chicago.
8 herbarium specimens—Chicago (gift).
- THE TERRITORY OF ALASKA.
1 economic specimen (wild grass)—Alaska (gift).
- U. S. DEPARTMENT OF AGRICULTURE, Bureau of Plant Industry, Washington, D. C.
23 varieties of soy beans (gift).
11 varieties of wheat specimens—United States (gift).

- 1 herbarium specimen (gift).
 12 varieties of soy beans (gift).
- U. S. NATIONAL HERBARIUM,
 Smithsonian Institution,
 Washington, D. C.
- 3 herbarium specimens—various
 localities (exchange).
- UNITED STATES NATIONAL
 MUSEUM, Smithsonian Insti-
 tution, Washington, D. C.
- 60 herbarium specimens—various
 localities (exchange).

DEPARTMENT OF GEOLOGY.

- ALASKA COMMISSION TO
 AMERICAN MINING
 CONGRESS, Juneau, Alaska.
- 16 specimens of ore—Alaska
 (gift).
- AMERICAN FLUORSPAR CO.,
 Wagon Wheel Gap, Colorado.
- 7 specimens of fluorite and barite
 —Wagon Wheel Gap, Colorado
 (gift).
- BALL, PROF. O. M., College Station,
 Texas.
- 20 specimens of fossil plants—
 Mansfield, La., and Brazos
 County, Texas (gift).
- BLACK PRODUCTS CO., THE,
 Riverdale Station, Chicago.
- 9 specimens of coal-tar-pitch
 products (gift).
- BROWN, GUS E., Galena, Illinois.
- 7 specimens of lead and zinc ores
 Galena, Illinois (gift).
- BUCKSTAFF, RALPH N., Oshkosh,
 Wisconsin.
- 11 specimens of Cumberland Falls
 meteorite—Cumberland Falls,
 Kentucky (exchange).
- 1 individual meteorite—Holbrook,
 Arizona (gift).
- CHALMERS, WILLIAM J., Chicago.
- 1 specimen of silver rosette—
 Boulder, Colorado (gift).
- 13 specimens of moss agate and
 jasper—Glendive, Montana
 (gift).
- 13 specimens of crystals—various
 localities (gift).
- 3 specimens of tourmaline crystals
 —Mt. Mica, Paris, Maine
 (gift).

UNIVERSITY OF CALIFORNIA,
 Berkeley, California.

- 7 herbarium specimens—Santa
 Catalina Island, California
 (exchange).

WRIGLEY, JR., WILLIAM J.,
 Chicago.

- 581 plants of the older collectors
 on Santa Catalina Island—
 various localities (gift).

COLORADO FUEL & IRON CO.,
 Denver, Colorado.

- 1 specimen of bituminous coal
 Rockvale, Fremont Co., Colo-
 rado (gift).

COLORADO STATE BUREAU OF
 MINES, Denver, Colorado.

- 6 specimens of coal—Colorado
 (gift).
 2 specimens of ore—Colorado
 (gift).
 2 maps—Colorado (gift).

COLORADO & UTAH COAL CO.,
 Denver, Colorado.

- 1 specimen of bituminous coal—
 Mt. Harris, Routt Co., Colo-
 rado (gift).

COOPER, A. T., Webster, South
 Dakota.

- 1 specimen of covellite with
 chalcopyrite—Mills Mine, near
 Carbo, Sonora, Mexico (gift).

DENVER FIRE CLAY CO., THE,
 Denver, Colorado.

- 3 specimens of fire clay—Golden,
 Colorado (gift).

FIELD MUSEUM OF NATURAL
 HISTORY.

Collected by O. C. Farrington:

- 1 specimen of glacial striae on
 lepidolite—Paris, Maine.

Purchases:

- 6 specimens of minerals—
 Leadville, Colorado, and
 Minasragra, Peru.
 1 specimen of tschermigite—
 Wamsutter, Wyoming.

GALLAGHER, J. F., Chicago.

- 1 specimen of fuller's earth—
 Arkansas (gift).

- 1 specimen of rock weathering—Arkansas (gift).
- 1 specimen of chert—Hot Springs, Arkansas (gift).
- 4 specimens of catlinite—Pipestone, Minnesota (gift).
- GATES, MYRON C., Gordon, Nebraska.
- 6 specimens of sand-calcite crystals—Bad Lands, South Dakota (gift).
- GILBERT, B. C., Chicago.
- 1 specimen of torbernite—Silver City, New Mexico (gift).
- 3 photographs taken by emanation from the specimen (gift).
- 218 specimens of minerals, ores and fossils—New Mexico (gift).
- HEAD, R. E., Salt Lake City, Utah.
- 13 specimens of coals and ores—Utah (gift).
- HICKMAN, C. B., Silver City, New Mexico.
- 7 specimens of fluorite—Grama, New Mexico (gift).
- HUNTOON, J. F., Chicago.
- 7 specimens of mica—Keystone, South Dakota (gift).
- HUTCHINSON, MRS. C. L., Chicago.
- 1 specimen of bleached sandstone—Huron Mountain, Michigan (gift).
- KENT, C. A., Chicago.
- 5 specimens of colored sands—MacGregor, Iowa (gift).
- KING, C. H., Chicago.
- 2 specimens of fossil coral—Elk Lake, Michigan (gift).
- KNOPF, EZRA C., Avalon, California.
- 1 specimen of water agate—Santa Catalina Island, California (gift).
- 1 specimen of blister pearl—Santa Catalina Island, California (gift).
- 2 specimens of miscellaneous minerals—Santa Catalina Island, California (gift).
- 24 specimens of catlinite—Santa Catalina Island, California (gift).
- KONSBERG, A. V., Chicago.
- 1 specimen of tufa—Mammoth Hot Springs, Yellowstone Park (gift).
- 1 specimen of blende—Galena, Illinois (gift).
- LANGTRY, J. C., Chicago.
- 32 specimens of minerals—various localities (gift).
- 3161 specimens of fossils—various localities (gift).
- MARINER AND HOSKINS, Chicago.
- 9 specimens of metallic arsenic—Chicago (gift).
- 12 specimens of arsenic ores—Tonopah, Nevada (gift).
- MAUCELI, IGNAZIO, Chicago.
- 1 specimen of fossil coral—Burlington, Illinois (gift).
- PATEE, FRED, Casper, Wyoming.
- 1 specimen of bentonite—Wyoming (gift).
- RADIUM INFORMATION SERVICE, New York City.
- 3 specimens of carnotite—Long Park, Colorado (gift).
- ROCKY MOUNTAIN FUEL CO., Denver, Colorado.
- 1 specimen of bituminous coal—Superior, Colorado (gift).
- RONAN, JOHN, Hyder, Alaska.
- 29 specimens of ore—Salmon River District, Alaska (gift).
- ROYSE, R. L., Ogden, Utah.
- 1 specimen of tschermigite—Wamsutter, Wyoming (gift).
- SKIFF, MRS. FREDERICK J. V., Chicago.
- Bronze bust of Dr. Frederick J. V. Skiff (gift).
- SMITH, COLLINS C., Chicago.
- 1 specimen of asbestos—Wisconsin (gift).
- SMUGGLER UNION MINING CO., Telluride, Colorado.
- 3 specimens of concentrates—Telluride, Colorado (gift).
- STANDARD OIL CO. (Indiana), Chicago.
- 10 specimens of fuller's earth—Olmstead, Pulaski Co., Illinois (gift).
- 168 specimens of petroleum wax and products (gift).

- STEPHEN, MRS. G. M., Chicago.
 1 specimen of quartz—Los Cerrillos, New Mexico (gift).
 8 specimens of turquoise—Los Cerrillos, New Mexico (gift).
- STEWART, ROBERT B., Chicago.
 2 specimens of lead and zinc ore—Gunnison Co., Colorado (gift).
- SUNNYSIDE MINING & MILLING CO., Eureka, San Juan Co., Colorado.
 8 specimens of ore—Eureka, San Juan Co., Colorado (gift).
- THOMAS, R. K., Navajo, Arizona.
 4 specimens of fossil mollusks—Seven Springs, Arizona (gift).
- THOMAS, W. S., Elgin, Illinois.
 1 specimen of cerussite—near Salt Lake City, Utah (gift).
- U. S. BUREAU OF MINES, Boulder, Colorado.
 2 specimens of oil shale—Colorado and Wyoming (gift).
- 13 specimens of oil shale and products—Colorado, Wyoming and Utah (gift).
- UNITED STATES GYPSUM CO., Chicago.
 1 specimen of rose petal anhydrite—Gypsumville, Manitoba (gift).
- VICTOR-AMERICAN FUEL CO., Denver, Colorado.
 2 specimens of bituminous coal—Routt Co., Colorado (gift).
- WESTERN BRICK CO., Danville, Illinois.
 3 specimens of shale—Danville, Illinois (gift).
 20 specimens of briquettes—Danville, Illinois (gift).
- WILDES, F. A., St. Paul, Minnesota.
 2 specimens of ore—St. Louis Co., Minnesota (gift).
 34 specimens of peat—St. Louis Co., Minnesota (gift).

DEPARTMENT OF ZOÖLOGY

- ABBEY, E. S., Chicago.
 1 dragonfly—Chicago (gift).
- ALLEN, G. W., Chicago.
 1 beetle, 1 moth—Chicago (gift).
- AMERICAN RAILWAY EXPRESS CO., Chicago.
 9 moths—East Indies (gift).
- AYRES, HOWARD, Chicago.
 7 fishes—(exchange).
- BRANDLER, CHARLES, Chicago.
 2 fox squirrels—Wisconsin (gift).
 1 trout perch—Lake Michigan (gift).
- BRAZA, JOSEPH A., East Las Vegas, New Mexico.
 5 horned toads, 1 prairie rattlesnake—Levy, New Mexico (gift).
- BRUSOR, FRANK, New Boston, Ill.
 2 large soft-shelled turtles—New Boston, Illinois (gift).
- BUETTNER, JOHN, Chicago.
 1 lizard—Lakeland, Florida (gift).
 1 milliped, 1 scorpion, 1 mantis—Lakeland, Florida (gift).
- COBBS, B. B., Chicago.
 1 spider—Chicago (gift).
- CONOVER, H. B., Chicago.
 1 skull of grizzly bear—Canada (gift).
 1 mounted mourning dove (gift).
 3 mountain sheep, 1 ground squirrel—Yukon Territory (gift).
- DAHLGREN, B. E., Chicago.
 1 rattlesnake—Florida (gift).
- DAVIDSON, A. A., Chicago.
 20 skulls and horns of mammals—South Africa (gift).
- DEANE, RUTHVEN, Chicago.
 43 albino birds, 1 albino squirrel (gift).
- DEICHMANN, N. J., Chicago.
 1 praying mantis—Irving Park, Illinois (gift).
- EDGAR, C. T., Hazelhurst, Wisconsin.
 1 camel cricket—Hazelhurst, Wis. (gift).
 1 mounted loon—Hazelhurst, Wis. (gift).

- FIELD, STANLEY, Chicago.
3 bronze animal groups by Carl Akeley:
- | | |
|---------------------------------|--------|
| A Charge of African Elephants; | } gift |
| The Wounded Comrade; | |
| Fight Between Lion and Buffalo. | |
- FIELD MUSEUM OF NATURAL HISTORY.
Received from Museum Guard:
1 least bittern.
Collected by A. C. Weed:
10 dragonfly nymphs—Dupage, Ill.
Collected by Wm. J. Gerhard:
87 dragonflies, grasshoppers, bugs, ant-lions, butterflies, moths, flies, beetles, bees, wasps and parasites—northern Illinois and northern Indiana.
Collected by E. Liljebld:
91 millipeds, centipedes, dragonflies, ant-lions, bugs, grasshoppers, butterflies, moths, flies, beetles, bees, wasps and parasites—northern Illinois and northern Indiana.
Collected by A. C. Weed and L. L. Walters:
73 specimens of reptiles and frogs—Chicago.
Prepared by L. L. Walters
Celluloid models of 1 turtle, 4 snakes and 2 frogs—Chicago.
Purchases:
4 specimens of Cory's shearwater—Island of Pico, Azores.
125 specimens of frogs—Minnesota.
24 specimens of fishes—Chicago.
- FRENCH, G. H., Carbondale, Ill.
1 moth—Carbondale, Ill. (gift).
- FRIESSER, J., Chicago.
1 cicada, 1 fly—Chicago (gift).
- GEILHUF, FRED, Chicago.
1 centipede—Chicago (gift).
- GERHARD, WM. J., Chicago.
370 dragonflies, grasshoppers, bugs, butterflies, moths, beetles, flies, bees, wasps and parasites—northern Indiana and northern Illinois (gift).
- GREENLEE, MRS. R. S., Chicago.
1 hawk's-bill turtle (gift).
- GUERET, E. N., Chicago.
5 moths—Chicago (gift).
- GUNDER, J. D., Chicago.
1 hemerobian—Yellowstone National Park (gift).
- HADA, STEPHEN, Chicago.
1 lake herring—Chicago (gift).
- HAREBO, MRS. J. F., New Lisbon, Wisconsin.
1 blue-tailed skink—New Lisbon, Wisconsin (gift).
- HOUGAARD, MRS. C. S., Elmwood Park, Illinois.
1 spider—Elmwood Park, Illinois (gift).
- KAEMPFER, FRED, Chicago.
1 black tamarin marmoset (gift).
- KNOPF, EZRA C., Avalon, California.
1 butterfly, 5 moths—Avalon, California (gift).
- LANGTRY, J. C., Chicago.
1 pair elk horns (gift).
- LILJEBLAD, E., Chicago.
18 dragonflies, ant-lions, bugs, beetles, flies, wasps and parasites—northern Illinois and northern Indiana (gift).
- LOMEN, CARL J., Seattle, Washington.
1 golden eagle—Alaska (gift).
- MASON, J. A., Chicago.
1 young hog-nosed snake—Waverly Beach, Indiana (gift).
- NARBO, DR. SVEN, Stavanger, Norway.
3 bird's eggs—Norway (gift).
47 dragonflies, bugs, butterflies, flies, bees, parasites, beetles and moths—Norway (gift).
23 beetles, caddice-flies, butterflies and moths—Norway (gift).
35 shells—Norway (gift).
- OSGOOD, W. H., Chicago.
35 mammals—Nebraska (gift).
- PEET, FRED N., Chicago.
1 small mouth bass—Alma, Wisconsin (gift).
- POLZIN, GEO. P., Edison, California.
1 scorpion—Edison, California (gift).
- PORTER, A. F., Decorah, Iowa.
1 katydid, 2 mantis, 1 ant-lion, 1

- milliped, 1 beetle, 6 bees and parasites—Africa and Florida (gift).
- PSOTA, DR. F. J., Chicago.
1 raphidian, 2 dobsons—California (gift).
- REYNOLDS, M. K., Marquette, Michigan.
1 rainbow trout—Marquette, Michigan (gift).
- ROMANO, JOE, Chicago.
1 moth—Chicago (gift).
- ROTHSCHILD'S AQUARIUM, Chicago.
3 fishes (gift).
2 shovelnose sturgeons—Bellevue, Iowa (Gift).
- ROWE, KATHERINE, ESTATE OF, Chicago.
54 mounted birds (bequest).
4 mounted small mammals (bequest).
- SCHWARZ, E., St. Louis, Missouri.
2 moths—St. Louis, Missouri (gift).
- SELINGER, CARL, Chicago.
3 chrysalids—northern Illinois (gift).
- SHEWSKI, LEO, Bass Lake, Indiana.
1 rough-legged hawk—Bass Lake, Indiana (gift).
- SHELDON, MARK, New York.
1 emu skin (gift).
- SMITH, MRS. LYDIA, North Rose, New York.
1 ribbon snake—North Rose, New York (gift).
- SUGDEN, J. H., Salt Lake City, Utah.
6 mountain crickets—Rexburg, Idaho (gift).
- TARRANT, ROBERT, Chicago.
1 ring-tailed bassariscus (gift).
- WALTERS, L. L., Chicago.
1 common garter snake, 5 cricket frogs—Indiana (gift).
- WEED, A. C., Chicago.
1 moth, 1 centipede—northern Illinois (gift).
17 fishes—(gift).
Set of four eggs of marsh hawk North Rose, New York (gift).
- WILLIAMSON, E. B., Bluffton, Indiana.
1 Hungarian partridge (gift).
- WILLIAMSON, J. H., Bluffton, Indiana.
131 dragonflies—Florida and South Carolina (gift).
- WOLCOTT, A. B., Chicago.
2 bugs—Hessville, Indiana (gift).
- WOODHAMS, CLEO, North Rose, New York.
1 large garter snake, 40 young water snakes—North Rose, New York (gift).

SECTION OF PHOTOGRAPHY

- WINTERNITZ, M. L., Chicago.
100 prints—Seminole, and Burma, India (gift).
- FIELD MUSEUM OF NATURAL HISTORY.
Made by Section:
395 negatives, 1,672 prints.
- GLASIER, FRED E., Brockton, Massachusetts.
9 colored reproductions of American Indians.

THE LIBRARY

LIST OF DONORS AND EXCHANGES

(Accessions are by exchange, unless otherwise designated)

AFRICA:

- Albany Museum.
Durban Museum.
East Africa and Uganda Natural History Society, Nairobi.
- Geological Society, Johannesburg.
Geological Survey, Cairo.
Government of Uganda Protectorate
Institut d'Egypte, Cairo.
Institut de Carthage, Tunis.



SOFT-SHELLED TURTLE.
Celluloid reproduction by L. L. Walters.

LIBRARY
UNIVERSITY OF ILLINOIS
URBANA

Royal Society of South Africa, Cape Town.
 South African Association for Advancement of Science, Cape Town.
 South African Department of Agriculture, Pretoria.
 South African Museum, Cape Town.
 Transvaal Museum, Pretoria.
 Zoological Gardens of Ghizeh, Cairo.

ARGENTINA:

Museo de la Plata, Buenos Aires.
 Sociedad Ornitológica del Plata, Buenos Aires.

AUSTRALIA:

Australian Museum, Sydney.
 Botanic Gardens and Government Domains, Sydney.
 Commonwealth of Australia, Adelaide.
 Department of Agriculture, Adelaide.
 Department of Agriculture, Sydney.
 Department of Agriculture, Wellington.
 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.
 Institute of Science and Industry, Sydney.
 Linnean Society of New South Wales, Sydney.
 Melbourne University.
 National Herbarium, Melbourne.
 National Herbarium, South Yarra.
 Parliament of the Commonwealth, Sydney.
 Public Library, Museum and Art Gallery, Adelaide.
 Public Library, Museums and National Gallery of Victoria, Melbourne.
 Queensland Museum, Brisbane.
 Royal Geographical Society of Australasia, Brisbane.
 Royal Society of New South Wales, Sydney.
 Royal Society of South Australia, Adelaide.
 Royal Society of Tasmania, Hobart
 Royal Society of Victoria, Melbourne.
 Royal Society of Western Australia, Perth.
 South Australian Ornithological Society, Adelaide.
 Technological Museum of New South Wales, Sydney.

Victoria Department of Agriculture, Melbourne.
 Western Australia, Geological Survey, Perth.

AUSTRIA:

Anthropologische Gesellschaft in Wien.
 K. K. Naturhistorisches Museum, Vienna.
 K. K. Zoologisch-Botanische Gesellschaft, Vienna.

BELGIUM:

Académie Royale de Belgique, Brussels.
 Institut Botanique Leo Errera, Brussels
 Jardin Botanique de l'Etat, Brussels
 Musée Royale d'Histoire Naturelle, Brussels
 Société Royale d'Archeologie, Brussels.
 Société Royale de Botanique, Brussels.
 Société Royale des Sciences, Liège.

BRAZIL:

Biblioteca Nacional, Rio de Janeiro.
 Escola Superior de Agricultura e Medicina, Veterinaria, Rio de Janeiro.
 Instituto Agronomico de Estado, Sao Paulo.
 Museu Nacional, Rio de Janeiro.

CANADA:

Chief Game Guardian of Saskatchewan, Regina.
 Commission of Conservation, Ottawa.
 Department of Agriculture, Ottawa.
 Department of Agriculture, Victoria.
 Department of Agriculture of Ontario, Toronto.
 Department of Marine and Fisheries, Ottawa.
 Department of Mines, Ottawa.
 Department of the Interior, Geological Survey, Ottawa.
 Ontario Minister of Education, Toronto.
 Provincial Museum, Toronto.
 Provincial Museum, Victoria.
 Royal Canadian Institute, Toronto.
 Royal Society of Canada, Ottawa
 Société de Géographie, Québec.
 University of Toronto.

BULGARIA:

Musée Ethnographique National, Sofia.

CEYLON:

Columbo Museum

CHILE:

Museo de Etnologia y Antropologia de Chile, Santiago de Chile.

CHINA:

Botany and Forestry Department, Hong-kong.
Canton Christian College (gift).
Royal Asiatic Society of North China, Shanghai.

CZECHO-SLOVAKIA:

Deutscher Naturwissenschaftlich-Medizinischer Verein für Böhmen "Lotos," Prag.

DENMARK:

Anthropologiske Komité, Copenhagen.
Botanical Garden, Library, Copenhagen.
Danske Kunstindustrimuseum, Copenhagen.
Mineralogical Museum, Copenhagen.
Naturhistorisk Forening, Copenhagen.
Societe Botanique, Copenhagen.

ECUADOR:

Sociedad Ecuatoriana de Estudios Historicos Americanos, Quito.

FEDERATED MALAY STATES:

Federated Malay States Museum, Kuala Lumpur.

FIJI ISLANDS:

Fijian Society, Suva.

FINLAND:

Abo Akademi.
Finnish Archaeological Society, Helsingfors.

FRANCE:

Academie des Sciences, Paris.
Ecole d'Anthropologie, Paris.
Musée d'Histoire Naturelle, Marseille.
Musée d'Histoire Naturelle, Lausanne.
Muséum d'Histoire, Naturelle, Lyons.
Musée Guimet, Paris.
Muséum National d'Histoire Naturelle, Paris.
La Nature, Paris.
Société d'Études Scientifiques Angers.
Société d'Études Scientifiques, Naturelles, Reims.
Société d'Histoire Naturelle, Colmar.

Societe d'Horticulture, Paris.

Societe de Geographie, Paris.

Societe de Geographie, Toulouse.

Societe des Americanistes, Paris.

Societe des Sciences de Nancy.

Societe des Sciences Naturelles de

Saône et Loire, Chalon-sur-Saône.

Societe Linnéenne, Bordeaux.

Societe Nationale d'Agriculture,

Sciences et Arts, Angers.

Université de Rennes.

GERMANY:

Bayerische Akademie der Wissenschaften, Munich.

Botanischer Verein der Provinz Brandenburg, Berlin.

Deutsche Dendrologische Gesellschaft, Bonn-Poppelsdorf.

Deutsche Geologische Gesellschaft, Stuttgart.

Deutsche Gesellschaft für Anthropologie, Ethnologie und Urgeschichte, Berlin.

Deutsche Morganlandische Gesellschaft, Leipzig.

Deutscher Seefischerei Verein, Berlin.

Deutscher Universität, Berlin.

Deutsches Entomologisches Institut, Berlin.

Georg August Universität, Göttingen.

Geographische Gesellschaft, Hamburg.

Geographische Gesellschaft, Munich.

Gesellschaft für Erdkunde, Berlin.

K. Museum für Volkskunde, Berlin.

K. Preussische Akademie der Wissenschaften, Berlin.

K. Universitäts Bibliothek, Marburg.

K. Universitäts Bibliothek, Munich.

K. Universitäts Bibliothek, Tübingen.

K. Zoologisches Museum, Berlin.

Museum für Völkerkunde, Hamburg.

Nassauischer Verein für Naturkunde, Wiesbaden.

Naturforschende Gesellschaft, Göttingen.

Naturhistorische Gesellschaft, Hannover.

Naturhistorischer Verein, Bonn.

Naturwissenschaftliche Gesellschaft, Dresden.

Ornithologische Gesellschaft in Bayern, Munich.

Thüringischer Botanischer Verein, Weimar.

Universitäts Bibliothek, Giessen.

Verein für Vaterländische Naturkunde in Württemberg, Stuttgart.

Verein für Erdkunde, Darmstadt.
Zoologisches Museum, Hamburg.

GREAT BRITAIN:

Birmingham Natural History and Philosophical Society.
Brighton and Hove Natural History and Philosophical Society.
Brighton.
Bristol Museum and Gallery.
British Museum (Natural History), London.
Cambridge Antiquarian Society.
Cambridge Philosophical Society.
Cambridge University Library.
Cardiff Naturalists' Society.
Dove Marine Laboratory, Cullercoats.
Fisheries Board, Edinburgh.
Geological Society, Edinburgh.
Geological Survey, Edinburgh.
Great Britain Geological Survey, London.
Hull Municipal Museum.
Imperial Bureau of Entomology, London.
Imperial College of Science and Technology, London.
Institute of Oriental Studies, London.
Japan Society of London.
Lancashire Sea Fisheries Laboratories, Liverpool.
Linnean Society of London.
Liverpool Biological Society.
London Library.
Manchester Literary and Philosophical Society.
Manchester Museum.
National Museum, Cardiff.
Natural History and Philosophical Society, Croydon.
Oxford University Museum.
Perthshire Society of Natural Science, Perth.
Royal Anthropological Institute of Great Britain and Ireland, London.
Royal Botanic Gardens, Edinburgh.
Royal Botanic Gardens, Kew.
Royal Colonial Institute, London.
Royal Cornwall Polytechnic Society, Falmouth.
Royal Geographical Society, London.
Royal Horticultural Society, London.
Royal Scottish Museum, Edinburgh.
Royal Society, London.
Royal Society of Arts, London.
Royal Society of Edinburgh.
South London Entomological and Natural History Society.
Tring Zoological Museum.
Victoria and Albert Museum, London.

Wellcome Chemical Research Laboratories, London.
Zoological Society of London.

HUNGARY:

Magyar Természettudományi Társulat, Budapest.
Museum Nationale Hungaricum, Budapest.

INDIA:

Anthropological Society, Bombay.
Archaeological Survey, Allahabad.
Archaeological Survey, Bombay.
Archaeological Survey, Calcutta.
Archaeological Survey, Eastern Circle, Patna.
Archaeological Survey, Frontier Circle, Peshawar.
Archaeological Survey Department, Madras.
Archaeological Survey of Burma, Lahore.
Department of Agriculture, Bombay.
Department of Agriculture, Madras.
Department of Agriculture, Pusa.
Geological Survey, Calcutta.
Government, Calcutta.
Government Cinchona Plantation, Calcutta.
Government Museum, Madras.
Indian Museum, Calcutta.
Journal of Indian Botany.
National Indian Association, Calcutta (gift).
Raffles Museum and Library, Singapore.
Superintendent of Archaeology H. E. H. Nizam's Dominions, Hyderabad.
Superintendent of Archaeological Survey, Hindu and Buddhist Monuments, Lahore.
University of Calcutta.

IRELAND:

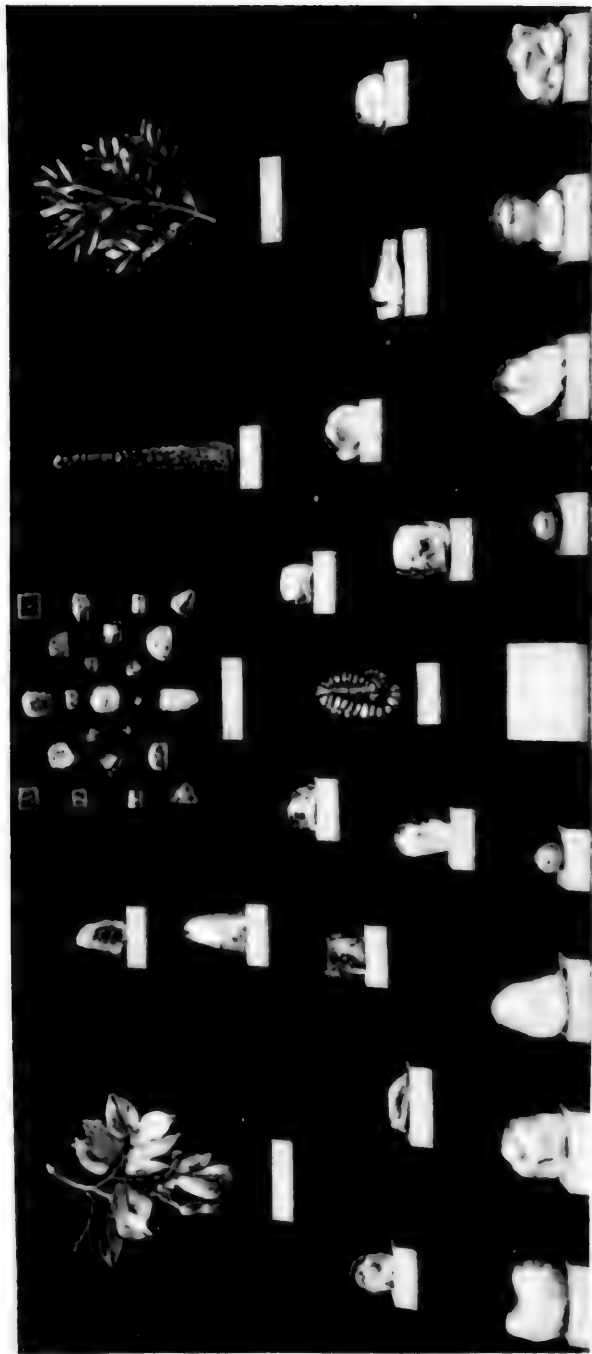
Belfast Naturalists' Field Club.
Natural History and Philosophical Society, Belfast.
Royal Irish Academy, Dublin.

ITALY:

Accademia delle Scienze Físiche e Matematiche, Naples.
Istituto Botanico, Milan.
Istituto Geografico de Agostini, Novara.
Laboratorio de Zoologia Generale e Agraria, Pertioli.
R. Società Geografica Italiana, Rome.
Società Italiana d'Antropologia e Etnologia, Florence.

- Società Italiana de Scienze Naturali,
Milan.
Società Romana di Antropologia,
Rome.
Società Toscana di Scienze Naturali,
Pisa.
University of Naples.
- JAPAN:**
Bureau of Productive Industry
Formosa Government, Taihoku.
Educational Museum, Tokyo.
Geological Society, Tokyo.
Imperial University of Tokyo,
College of Science.
Ornithological Society, Tokyo.
Tokyo Botanical Society.
Yamato Society, Tokyo.
- JAVA:**
Bataviaasch Genootschap van Kunsten
en Wetenschappen, Batavia.
Department of Agriculture, Buitenzorg.
Encyclopaedisch Bureau, Weltvreden.
Jardin Botanique, Buitenzorg.
K. Natuurkundige Vereeniging in
Nederlandsch-Indie, Weltvreden.
- MEXICO:**
Instituto Geologico, Mexico.
Sociedad Cientifica "Antonio
Alzate," Mexico.
- NETHERLANDS:**
K. Akademie van Wetenschappen,
Amsterdam.
K. Instituut voor de Taal-Land-en
Volkenkunde van Nederlandsch
Indie, The Hague.
K. Nederlandsch Aardijkundig
Genootschap, Amsterdam.
Ministry of Agriculture, Industry
and Commerce, The Hague.
Museum voor Land-en Volkenkunde
en Maritiem Museum "Prinz
Hendrik," Rotterdam.
Nederlandsche Dierkunde Vereenig-
ing, Leiden.
Rijks Ethnographisch Museum,
Leiden.
Rijks Herbarium, Leiden.
Rijks Hoogere Land-Tuin-en Bosc-
bouwschool, Wageningen.
Rijks Museum van Natuurlijke
Historie, Leiden.
University of Otago, Dunedin.
- NEW ZEALAND:**
Acclimatisation Society, Wellington.
Auckland Institute and Museum,
Wellington.
- Department of Agriculture, Welling-
ton.
Department of Mines, Wellington.
New Zealand Institute, Wellington.
- NORWAY:**
Bergen Museum.
Norges Geologiske Undersögelse,
Christiania.
Nyt magasin för Naturviden-
skaberne, Christiania.
Tromso Museum.
- PERU:**
Archivo Nacional, Lima.
Biblioteca Nacional, Lima.
Cuerpo de Ingenieros de Minas,
Lima.
Instituto Historico, Lima.
Sociedad Geografica de Lima.
- POLAND:**
Musei Polonici Historiae Naturales,
Warsaw.
- PORTUGAL:**
Biblioteca Nacional, Lisbon.
- SPAIN:**
Colegio de Pasaje, La Guardia.
Institució Catalana d'Historia
Natural, Barcelona.
Instituto General y Tecnico,
Valencia.
Junta de Ciencias Naturals, Barce-
lona.
Laboratorio de Hidrobiologia
Española, Valencia.
Museo Nacional de Ciencias
Naturales, Madrid.
R. Academia de Ciencias y Artes,
Barcelona.
R. Academia de Ciencias Exactas,
Fisicas y Naturales, Madrid.
Sociedad Española de Historia
Natural, Madrid.
- SWEDEN:**
Botanica Notiser, Lund.
K. Biblioteket, Stockholm.
K. Svenska Vetenskapsakademien,
Stockholm.
K. Vitterhets Historie och Antik-
vitets Akademien, Stockholm.
Lunds Universitet.
Svenska Sällskapet för Antropologi
och Geografi, Stockholm.
- SWITZERLAND:**
Botanic Garden, Zürich.
Geographisch - Ethnographische Ge-
sellschaft, Zürich.
Historisches Museum, Bern.
Musée Ethnographique, Neuchatel.

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AMBER AND AMBER-LIKE RESINS.
Case 6, Stanley Field Hall.

- Naturforschende Gesellschaft, Bern.
Naturforschende Gesellschaft,
Zürich.
Ostschweizerische Geograph-Com-
mercielle Gesellschaft, St. Gallen.
Schweizerische Naturforschende Ge-
sellschaft, Bern.
Société de Physique et Histoire
Naturelle, Geneva.
Société Entomologique, Bern.
Société Fribourgeoise des Sciences
Naturelles, Fribourg.
- URUGUAY:**
Archivo General Administravo,
Montevideo (gift).
Museo de Historia Natural, Monte-
video.
- WEST INDIES:**
Academia Nacional de Artes y
Letras, Havana.
Agricultural Experiment Station,
Porto Rico.
Biblioteca Nacional, Havana.
Imperial Department of Agriculture,
Barbados.
Trinidad and Tobago Department of
Agriculture, Port of Spain.
Universidad de Habana.
- Carpenter, G. H., Dublin.
Chodat, R., Geneva.
Chrostowski, Tadzysz, Warsaw.
Dabbene, Roberto, Buenos Aires.
Dunod, H., Paris.
Gamble, J. S., London (gift).
Gennep, Arnold van, Paris.
Grandidier, M. G., Paris.
Hartland, E. Sydney, Gloucester,
England.
Hommel, Fritz, Munich (gift).
Huard, V. A., Quebec.
Janet, Charles, Paris.
Malinowski, Bronislaw.
Martelli, U., Florence.
Pospisil, Frantisek, Warsaw.
Preuss, K., Berlin.
Rivet, P., Paris.
Rutot, A., Brussels.
Santos, José Dos, Porto (gift).
Schlaginhaufen, Otto, Zürich (gift).
Schmidt, W., Mödling.
Strom, Kaare Münster, Christiania
(gift).
Vischer, Wilhelm, Basel (gift).
Zimanyi, Károly, Budapest.
- ALABAMA:**
Agriculture Experiment Station,
Auburn.
Alabama Geological Survey,
University.
- Alabama University of Natural
History, University.
Anthropological Society,
Montgomery.
Department of Game and Fish,
Montgomery.
- ARIZONA:**
Agricultural Experiment Station,
Tucson.
University of Arizona, Tucson.
- CALIFORNIA:**
Agricultural Experiment Station,
Berkeley.
California Academy of Sciences, San
Francisco.
Cooper Ornithological Club, Holly-
wood.
Fish and Game Commission, San
Francisco.
Leland Stanford Junior University,
Stanford University.
Pomona College, Claremont.
San Diego Society of Natural
History.
Scripps Institution of Biological
Research, La Jolla.
Southwest Museum, Los Angeles.
State Board of Forestry, Sacra-
mento.
State Mining Bureau, Sacramento.
University of California, Berkeley.
- COLORADO:**
Bureau of Mines, Denver.
Colorado College, Colorado Springs.
Colorado Museum of Natural His-
tory, Denver.
Geological Survey, 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.
Forestry Association, Hartford.
Hartford Public Library.
Peabody Museum, New Haven.
State Geological and Natural History
Survey, New Haven.
Wesleyan University, Middletown.
Yale University, New Haven.
- DELAWARE:**
Agricultural Experiment Station,
Newark.
Hercules Powder Company, Wil-
mington.

FLORIDA:

Florida Geological Survey, Tallahassee

GEORGIA:

Geological Survey, Atlanta.

HAWAII:

Agricultural Experiment Station, Honolulu.

Bernice Pauahi Bishop Museum, Honolulu.

Board of Commissions of Agriculture and Forestry, Honolulu.

Hawaiian College, Honolulu.

Hawaiian Historical Society, Honolulu.

Sugar Planters' Association, Honolulu.

IDAHO:

University of Idaho, Moscow.

ILLINOIS:

Agricultural Experiment Station, Urbana.

Art Institute of Chicago.

Audubon Society, Chicago.

Board of Education, Chicago.

Chicago Public Library.

Division of Natural History Survey, Urbana.

Geographic Society of Chicago (gift).

Hardwood Record, Chicago (gift).

John Crerar Library, Chicago.

Lake Forest College.

Newberry Library, Chicago.

Northwestern University, Evanston.

Open Court Publishing Company, Chicago.

State Academy of Science, Springfield.

State Board of Agriculture, Springfield.

State Historical Library, Springfield.

State Water Survey, Urbana.

Superintendent of Public Instruction, Springfield.

Sweet, Wallach and Company, Chicago (gift).

University of Chicago.

University of Illinois, Urbana.

INDIANA:

Academy of Science, Indianapolis.

Agricultural Experiment Station, Lafayette.

Department of Conservation, Indianapolis.

Purdue University, Lafayette.

University of Notre Dame.

IOWA:

Historical Department of Iowa, Des Moines.

Iowa State College, Ames.

University of Iowa, Iowa City.

KANSAS:

Academy of Science, Topeka.

Agricultural Experiment Station, Manhattan.

Kansas Historical Society, Topeka.

State Board of Agriculture, Topeka.

KENTUCKY:

Agricultural Experiment Station, Louisville.

Department of Geology and Forestry, Frankfort.

LOUISIANA:

Agricultural Experiment Station, Baton Rouge.

Department of Conservation, New Orleans.

MAINE:

Agricultural Experiment Station, Orono.

Bowdoin College, Brunswick.

Department State Lands and Forestry, Augusta.

Portland Public Library.

MARYLAND:

Agricultural Experiment Station, College Park.

Fnoch Pratt Free Library, Baltimore.

Johns Hopkins University, Baltimore.

MASSACHUSETTS:

Agricultural Experiment Station, Amherst.

American Academy of Arts and Sciences, Boston.

American Antiquarian Society, Worcester.

Boston Public Library.

Boston Society of Natural History.

Clark University, Worcester.

Essex Institute, Salem.

Harvard College, Museum of Comparative Zoology, Cambridge.

Harvard University, Arnold Arboretum, Jamaica Plain.

Harvard University, Gray Herbarium, Cambridge.

Museum of Fine Arts, Boston.

New Bedford Free Public Library.

Peabody Institute.

Peabody Museum, Cambridge.

Peabody Museum, Salem.

Salem Public Library.

Springfield City Library Association.

Jan., 1922

Springfield
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MICHIGAN

Academy

Agriculture

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Michigan

Lansing

University

MINNESOTA

Saint Pa

Minneapolis

Minnesota

Paul

State Entom

University

MISSISSIPPI

Agriculture

Agronomy

State Geol

(gift).

MISSOURI:

Agriculture

Columbia

City Art M

Missouri

Louis

Missouri E

Saint Lou

Saint Lou

Washington

MONTANA:

State Pres

University

NEBRASKA:

Agriculture

Lincoln

Nebraska

University

NEW JERSEY:

Agriculture

Trenton

Springfield Natural History Museum.
Tufts College.
Williams College, Williamstown.

MICHIGAN:

Academy of Sciences, Ann Arbor.
Agricultural Experiment Station,
Agricultural College.
Detroit Institute of Art.
Geological and Natural History
Survey, Lansing.
Grand Rapids Public Library.
Michigan College of Mines, Hough-
ton.
Michigan State Library, Lansing.
State Board of Agriculture, Lansing.
State Board of Library Commissions,
Lansing.
University of Michigan, Ann Arbor.

MINNESOTA:

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

MISSISSIPPI:

Agricultural Experiment Station,
Agricultural College.
State Geological Survey, Jackson
(gift).

MISSOURI:

Agricultural Experiment Station,
Columbia.
City Art Museum, Saint Louis.
Missouri Botanical Garden, Saint
Louis.
Missouri Historical Society, Colum-
bia.
Saint Louis Academy of Sciences.
Saint Louis Public Library.
Saint Louis University.
Washington University, Saint Louis.

MONTANA:

State Forester, Helena (gift).
University of Montana, Missoula.

NEBRASKA:

Agricultural Experiment Station,
Lincoln.
Geological Survey, Lincoln.
University of Nebraska, Lincoln.

NEVADA:

Agricultural Experiment Station,
Carson City.

NEW JERSEY:

Agricultural Experiment Station,
Trenton.

Department of Conservation and
Development, Trenton.

Department of Plant Pathology,
Trenton.

Geological Survey, Trenton.

Newark Museums Association.

Princeton University.

Stevens Institute, Hoboken.

NEW MEXICO:

New Mexico Historical Society,
Santa Fe.

New Mexico Museum, Santa Fe.

NEW YORK:

Agricultural Experiment Station,
Geneva.

American Academy in Rome, New
York City.

American Geographical Society, New
York City.

American Institute of Mining En-
gineers, New York City.

American Museum of Natural
History, New York City.

Brooklyn Botanic Garden.

Brooklyn Institute of Arts and
Sciences.

Carnegie Foundation for the Ad-
vancement of Teaching, New York
City (gift).

Conservation Commission, Albany.

Cooper Union for the Advancement
of Science and Art, New York
City.

Cornell University, Ithaca.

Forest and Stream Publishing Com-
pany, New York City.

Inter-American Magazine, New
York City (gift).

Japan Society, New York City.

Metropolitan Museum of Art, New
York City.

Museum of the American Indian,
New York City.

New York Academy of Sciences,
New York City.

New York Botanical Garden, New
York City.

New York Historical Society, New
York City.

New York Times, New York City,
(gift.)

Pratt Institute Free Library, New
York City.

Public Library, New York City.

Rockefeller Foundation, New York
City.

State College of Forestry, Syracuse.

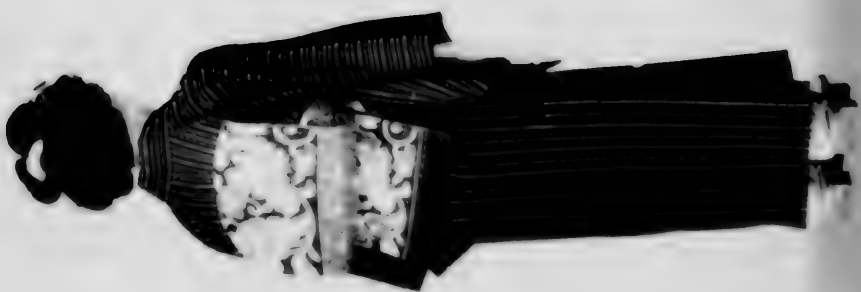
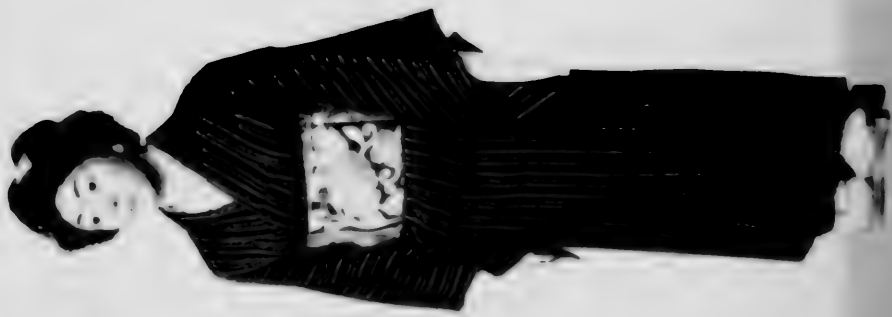
State Library, Albany.

State Museum, Albany.

Staten Island Institute of Arts and

- Sciences, New York City.
 Stone Publishing Company, New York City.
 University of the State of New York, Albany.
 Zoological Society, New York City.
- NORTH CAROLINA:**
 Elisha Mitchell Scientific Society, Chapel Hill.
 Geological and Economic Survey, Raleigh.
- NORTH DAKOTA:**
 State Historical Society of North Dakota, Bismarck.
 University of North Dakota, University.
- OHIO:**
 Academy of Science, Columbus.
 Agricultural Experiment Station, Wooster.
 Cincinnati Museum Association.
 Cleveland Museum of Art.
 Denison University, Granville.
 Geological Survey, Columbus.
 State Archaeological and Historical Society, Columbus.
 State University, Columbus.
 University of Cincinnati.
 Western Reserve Historical Society, Cleveland.
 Wilson Ornithological Club, Oberlin.
- OKLAHOMA:**
 Geological Survey, Norman.
 Oklahoma Historical Society, Oklahoma City.
- OREGON:**
 Agricultural Experiment Station, Corvallis.
 University of Oregon, Eugene.
- PENNSYLVANIA:**
 American Philosophical Society, Philadelphia.
 Association of Engineering Societies, Philadelphia.
 Bryn Mawr College.
 Carnegie Institute, Pittsburgh.
 Carnegie Library, Pittsburgh.
 Carnegie Museum, Pittsburgh.
 Delaware County Institute of Science, Media.
 Dropsie College, Philadelphia.
 Engineers' Society of Western Pennsylvania, Pittsburgh.
 Franklin Institute, Philadelphia.
 Macbeth-Evans Glass Company, Pittsburgh (gift).
 Numismatic and Antiquarian Society, Philadelphia.
 Pennsylvania Museum and School of Industrial Art, Philadelphia.
 Philadelphia Academy of Natural Sciences.
 Philadelphia College of Pharmacy.
 Philadelphia Commercial Museum.
 Sullivant Moss Society, Pittsburgh.
 University of Pennsylvania, Philadelphia.
 University of Pennsylvania Museum, Philadelphia.
 Wagner Free Institute of Science, Philadelphia.
 Wyoming Historical and Geological Society, Wilkes-Barre.
- PHILIPPINE ISLANDS:**
 Bureau of Education, Manila.
 Department of Agriculture, 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.
 South Dakota School of Mines, Rapid City.
- TEXAS:**
 Agricultural Experiment Station, College Station.
 Scientific Society of San Antonio.
 University of Texas, Austin.
- VERMONT:**
 State Geologist, Burlington.
- VIRGINIA:**
 State Library, Richmond.
 University of Virginia, Charlottesville.
 Virginia Geological Survey, Charlottesville.
- WASHINGTON:**
 Washington University, Seattle.
 Washington University, Historical Society, Seattle.
- WASHINGTON, D. C.:**
 American Mining Congress.
 Argentine Ambassador.

LIBRARY
UNIVERSITY OF ILLINOIS
URBANA



LIFE-SIZE FIGURE OF JAPANESE WOMAN IN STREET COSTUME, FRONT AND BACK.

- Carnegie Institution of Washington.
 Library of Congress.
 National Academy of Sciences.
 National Education Association
 (gift).
 National Zoölogical Park.
 Pan American Union.
 United States Government.
- WISCONSIN:**
 Wisconsin Experiment Station,
 Madison.
 Beloit College.
 Geological and Natural History
 Survey, Madison.
 University of Wisconsin, Madison.
- Ayer, Edward E., Chicago (gift).
 Baker, Frank C., Urbana.
 Barnes, William, Decatur.
 Bascom, Florence, Bryn Mawr (gift).
 Brandegee, Townsend S., Berkeley.
 Britton, Nathaniel L., New York.
 Bush, Benjamin F., (gift).
 Clarke, Thomas H., Cambridge (gift).
 Davies, D. C., Chicago (gift).
 Farwell, Oliver A., Detroit (gift).
 Field, Richard M., Jamaica Plain
 (gift).
 Field, Stanley, Chicago (gift).
 Gerhard, W. J., Chicago (gift).
 Hankinson, T. L., Ypsilanti (gift).
- Hanson, Herbert C., (gift).
 Hoyt, F. W., New York (gift).
 Hubbs, Carl L., Ann Arbor (gift).
 Jones, L. R., Madison.
 Kendall, William C., Washington, D.C.
 Laufer, Berthold, Chicago (gift).
 Manning, Warren H., North Bellerica
 (gift).
 Millspaugh, Charles F., Chicago.
 Morse, Edward S., Salem.
 Osborn, Henry Fairfield, New York
 City.
 Osgood, Wilfred H., Chicago (gift).
 Parshley, H. M., Northampton.
 Pennell, Francis W., New York City.
 Penrose, R. A. F., Philadelphia.
 Rostovtzeff, M., Madison.
 Rumsey, Winnie, Lake Forest (gift).
 Schmidt, Karl P., New York City
 (gift).
 Small, John K., New York City (gift).
 Speck, Frank G., Philadelphia (gift).
 Springer, Frank, Las Vegas.
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 Todd, W. E. Clyde, Pittsburgh.
 Tompkins-Kiel Marble Company, New
 York City (gift).
 Trelease, William, Urbana.
 Woods, George, Chicago (gift).

ARTICLES OF INCORPORATION.

STATE OF ILLINOIS.

DEPARTMENT OF STATE

WILLIAM H. HINRICHSEN, *Secretary of State.*

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

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

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

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

W. H. HINRICHSEN,
Secretary of State.

[SEAL]

TO HON. WILLIAM H. HINRICHSEN,

SECRETARY OF STATE:

SIR:

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

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."
2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, 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. Kohlsaat, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimmons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, George M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS
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 1, 1921.)

ARTICLE I.

MEMBERS

SECTION 1. Members shall be of seven classes, Corporate Members, Honorary Members, Patrons, 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 paying into the treasury the sum of five hundred (\$500.00) dollars, 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.

SECTION 6. 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 to 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 7. Sustaining Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of twenty-five (\$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,



BULLFROG.
Celluloid reproduction by L. L. Walters.

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 8. 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 cooperative 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 cooperative museums are located.

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 monthly. 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 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. But no warrant shall be issued, except in conformity with a regularly prepared voucher, giving the name of the payee and stating the occasion for the expenditure, and verified and approved as hereinafter prescribed. It shall be no part of the duties of the Treasurer to see that the warrants have been issued in conformity with such vouchers.

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. All vouchers executed for the payment of liabilities incurred in the administration of the Museum, shall be verified by the Auditor, and approved for payment by the Director, and a member of the Executive Committee. All vouchers executed for expenditures for the construction or reconstruction of the Museum building, or buildings, shall be verified by the Auditor and approved for payment by the Chairman of the Building Committee. All vouchers executed in connection with the investments of the Corporation, or, in any way having to do with the endowment funds of the Corporation, shall be verified by the Auditor and approved for payment by the Chairman of the Finance Committee.

SECTION 5. 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 the Vice-Presidents. But no warrant shall be issued, except in conformity with a regularly prepared voucher, giving the name of the payee and stating the occasion for the expenditure, and verified and approved by the Auditor, the Director, and a

member of the Executive Committee. It shall be no part of the duties of the said Custodian to see that the warrants have been issued in conformity with such vouchers.

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 vouchers 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.

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STRIPED BASS.
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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.	BLACKSTONE, MRS. T. B.
AYER, MRS. EDWARD E.	FIELD, STANLEY
McCORMICK, STANLEY	

DECEASED 1921

CORY, CHARLES B.

PATRONS.

ARMOUR, ALLISON V.	MANIERRE, GEORGE
BUTLER, EDWARD B.	MARKHAM, CHARLES H.
COLLINS, ALFRED M.	MILLER, JOHN S.
DAY, LEE GARNETT	PAYNE, JOHN BARTON
GRAHAM, ERNEST R.	SARGENT, HOMER E.
HUTCHINSON, CHARLES L.	SIMPSON, JAMES
KENNEDY, VERNON SHAW	SMITH, WILLARD A.
WILSON, JOHN P.	

DECEASED 1921

GUNSAULUS, FRANK W.
SKIFF, FREDERICK J. V.

CORPORATE MEMBERS.

ALDIS, OWEN F.
 ARMOUR, ALLISON V.
 AYER, EDWARD E.

BARTLETT, A. C.
 BLAIR, WATSON F.
 BORDEN, JOHN
 BUTLER, EDWARD B.
 BYRAM, HARRY E.

CHALMERS, W. J.
 CHATFIELD-TAYLOR, H. C.
 COLLINS, ALFRED M.
 CRANE, Jr., RICHARD T.

DAY, LEE GARNETT

EASTMAN, SIDNEY C.
 ELLSWORTH, JAMES W.

FIELD, MARSHALL
 FIELD, STANLEY

GAGE, LYMAN J.
 GRAHAM, ERNEST R.

HARRIS, ALBERT W.
 HUTCHINSON, CHARLES L.

JONES, ARTHUR B.

KEEP, CHAUNCEY
 KENNEDY, VERNON SHAW
 KOHLSAAT, HERMAN H.

McCORMICK, CYRUS H.
 MANIERRE, GEORGE
 MARKHAM, CHARLES H.
 MILLER, JOHN S.
 MITCHELL, JOHN J.

PAYNE, JOHN BARTON
 PECK, FERDINAND W.
 PORTER, GEORGE F.

RYERSON, MARTIN A.

SARGENT, HOMER E.
 SIMPSON, JAMES
 SMITH, SOLOMON A.
 SMITH, WILLARD A.
 SPRAGUE, ALBERT A.
 STONE, MELVILLE E.

WILSON, JOHN P.
 WRIGLEY, Jr., WILLIAM

 DECEASED 1921

GUNSAULUS, FRANK W.
 SKIFF, FREDERICK J. V.

LIFE MEMBERS.

ALDIS, ARTHUR T.
ALDIS, OWEN F.
ALEXANDER, WILLIAM A.
ALLEN, BENJAMIN
ALLERTON, ROBERT H.
ARMOUR, A. WATSON

BAKER, MISS ISABELLE
BANKS, ALEXANDER F.
BARRELL, FINLEY
BARRETT, MRS. A. D.
BARRETT, ROBERT L.
BARTLETT, A. C.
BASSFORD, LOWELL C.
BEALE, WILLIAM G.
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
BOYNTON, C. T.
BRIDGE, NORMAN
BREWSTER, WALTER S.
BROWN, WILLIAM L.
BUCHANAN, D. W.
BUFFINGTON, EUGENE J.
BURNHAM, JOHN
BUTLER, EDWARD B.
BYLLESBY, H. M.

CARR, CLYDE M.
CARRY, EDWARD F.
CARTON, L. A.
CHALMERS, WILLIAM J.
CLARK, EUGENE B.
CLAY, JOHN
CLOW, WILLIAM E.
COBE, IRA M.
CRAMER, CORWITH
CRANE, CHARLES RICHARD
CRANE, JR., RICHARD T.
CROWELL, H. P.
CUDAHY, JOSEPH M.
CUMMINGS, D. MARK
CUNNINGHAM, FRANK S.

DAU, J. J.

DAWES, CHARLES G.
DAY, ALBERT M.
DECKER, ALFRED
DEFREES, JOSEPH H.
DEERING, CHARLES
DEERING, JAMES
DELANO, FREDERIC A.
DICK, ALBERT BLAKE
DONNELLEY, REUBEN H.
DONNELLEY, THOMAS E.
DRAKE, JOHN B.
DRAKE, TRACY C.

ECKHART, B. A.

FAIR, ROBERT M.
FARNUM, HENRY W.
FARWELL, FRANCIS C.
FARWELL, JOHN V.
FARWELL, WALTER
FAY, C. N.
FELT, DORR E.
FERNALD, GUSTAVUS S.
FIELD, MARSHALL
FIELD, STANLEY
FORGAN, DAVID R.
FORGAN, JAMES B.
FORSYTH, ROBERT
FYFFE, COLIN C. H.

GARTZ, A. F.
GARY, JOHN W.
GETZ, GEORGE F.
GODDARD, LEROY A.
GOODMAN, WILLIAM O.
GOODRICH, A. W.
GRISCOM, CLEMENT A.
GROMMES, JOHN B.

HAMILL, ERNEST A.
HASKELL, FREDERICK T.
HASTINGS, SAMUEL M.
HIBBARD, FRANK
HILL, LOUIS W.
HINDE, THOMAS W.
HOPKINS, L. J.
HOROWITZ, L. J.
HOXIE, MRS. JOHN R.
HOYT, N. LANDON
HUGHITT, MARVIN
HULBERT, E. D.
HULBURD, CHARLES H.

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POMPANO.

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HUTCHINS, JAMES C.
HUTCHINSON, C. L.

INSULL, SAMUEL

JELKE, JOHN F.
JOHNSON, MRS. ELIZABETH
AYER
JOHNSON, FRANK S.
JONES, ARTHUR B.
JONES, DAVID B.
JONES, THOMAS D.

KEEP, CHAUNCEY
KELLER, THEODORE C.
KELLEY, WILLIAM V.
KING, FRANCIS
KING, JAMES G.
KIRK, WALTER RADCLIFFE

LAMONT, ROBERT P.
LAWSON, VICTOR F.
LEHMANN, E. J.
LEONARD, CLIFFORD M.
LOGAN, SPENCER H.
LORD, JOHN B.
LOWDEN, FRANK O.
LYTTON, HENRY C.

McCORMICK, MRS.
McCORMICK, CYRUS H.
McCORMICK, HAROLD F.
McELWEE, ROBERT H.
McKINLAY, JOHN
McKINLOCK, GEORGE
ALEXANDER
McLAUGHLIN, FREDERIC
McLAUGHLIN, GEO. D.
McLENNAN, D. R.
McWILLIAMS, LAFAYETTE,
MacVEAGH, FRANKLIN
MARK, CLAYTON
MARTIN, WILLIAM P.
MASON, WILLIAM S.
MINER, W. H.
MITCHELL, JOHN J.
MOORE, EDWARD S.
MORSE, Jr., CHARLES H.
MORTON, JOY
MORTON, MARK
MUNROE, CHARLES A.

NATHAN, ADOLPH
NEWELL, A. B.

ORR, ROBERT M.

PALMER, HONORE
PALMER, POTTER

PAM, MAX
PATTEN, HENRY J.
PAYNE, JOHN BARTON
PEABODY, AUGUSTUS S.
PEABODY, FRANCIS S.
PIEZ, CHARLES
PINKERTON, WILLIAM A.
PORTER, FRANK WINSLOW
PORTER, GEORGE F.
PORTER, H. H.

RAWSON, FREDERICK H.
REAM, MRS. CAROLINE P.
REVELL, ALEXANDER H.
REYNOLDS, GEORGE M.
ROBINSON, THEODORE W.
ROSENWALD, JULIUS
RUNNELLS, CLIVE
RUNNELLS, JOHN S.
RUSSELL, EDMUND A.
RUSSELL, EDWARD P.
RYERSON, MRS. CARRIE H.
RYERSON, EDWARD L.
RYERSON, MARTIN A.

SCHWEPPE, CHARLES H.
SCOTT, GEORGE E.
SCOTT, JOHN W.
SHAFFER, JOHN C.
SHEDD, JOHN G.
SIMPSON, JAMES
SMITH, ALEXANDER
SMITH, ORSON
SMITH, SOLOMON A.
SPOOR, JOHN A.
SPRAGUE, ALBERT A.
STEWART, ROBERT W.
STOUT, FRANK D.
STRAWN, SILAS H.
STUART, ROBERT
STURGES, GEORGE
SUNNY, B. E.
SWIFT, CHARLES H.
SWIFT, EDWARD F.
SWIFT, Jr., G. F.
SWIFT, LOUIS F.

THORNE, CHARLES H.
THORNE, ROBERT J.

UPHAM, FREDERIC W.

VEATCH, GEORGE L.
VILES, LAWRENCE M.

WETMORE, FRANK O.
WILLARD, ALONZO J.
WILLITS, WARD W.
WHEELER, CHARLES P.

WILSON, OLIVER T.
WILSON, THOMAS E.
WILSON, WALTER H.
WINSTON, GARRARD B.
WINTER, WALLACE C.

WOOLLEY, CLARENCE M.
WRIGLEY, JR., WILLIAM

YATES, DAVID M.

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FOSSIL SKULL OF NORTHERN MAMMOTH, FOUND IN ALASKA IN GLACIAL GRAVELS.
The skull is that of *Elephas*.

ANNUAL MEMBERS.

ADAMS, CYRUS H.
ADAMS, MILWARD
ARMOUR, GEORGE A.

BAILEY, EDWARD P.
BELDEN, JOSEPH G.
BOAL, CHARLES T.
BURLEY, CLARENCE A.

COMSTOCK, WILLIAM C.
CUMMINGS, E. A.
CURTIS, FRANCES H.

EISENDRATH, W. N.

FIELD, HENRY
FRANK, HENRY L.
FULLER, O. F.

GLESSNER, J. J.
GREY, CHARLES F.
GURLEY, W. W.

HITCHCOCK, R. M.
HOLT, GEORGE H.
HYRNEWETSKY, STEPHEN

JENKINS, GEORGE H.
JONES, J. S.

LAMB, FRANK H.
LINCOLN, ROBERT T.
LINN, W. R.
LOGAN, F. G.

McCREA, W. S.
MAGEE, HENRY W.
MANSURE, E. L.
MAYER, LEVY
MEYER, MRS. M. A.
MOORE, N. G.
MULLIKEN, A. H.

NOLAN, JOHN H.

PALMER, PERCIVAL B.
PARKER, FRANCIS W.
PEARSON, MRS. EUGENE H.

RIPLEY, MRS. E. P.
ROSENFELD, MRS. MAURICE

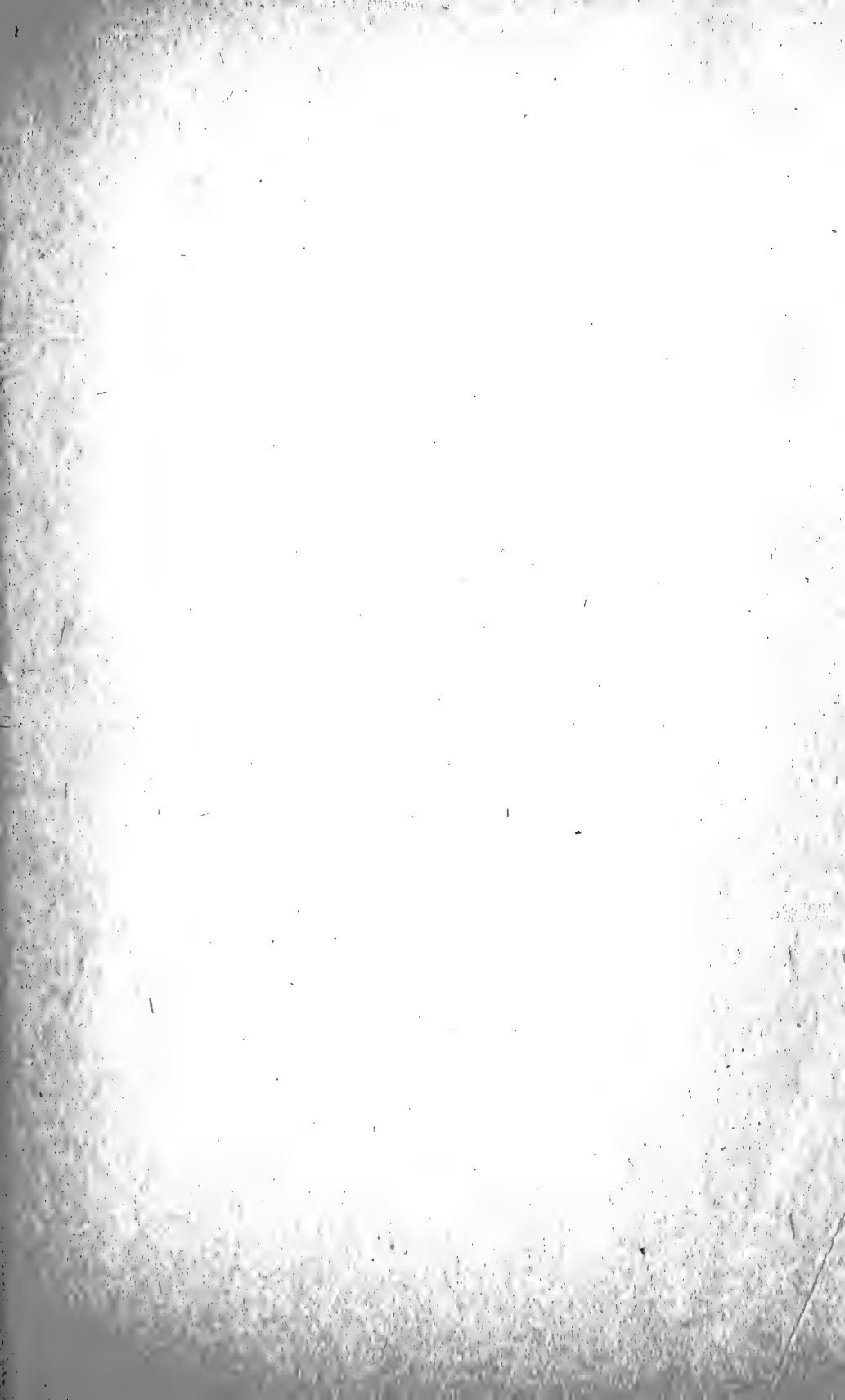
SCHMIDT, DR. O. L.
SCHWARTZ, G. A.
SHORTALL, JOHN L.
SKINNER, THE MISSES
SOPER, JAMES P.
SPENCE, MRS. ELIZABETH E.
STOCKTON, JOHN T.

THROOP, GEORGE ENOS

WACKER, CHARLES H.
WALKER, JAMES R.
WALLER, EDWARD C.
WHITEHEAD, W. M.
WILSON, MRS. E. CRANE
WILSON, M. H.
WORCESTER, MRS. CHARLES H.

DECEASED 1921

PEARSON, EUGENE H.
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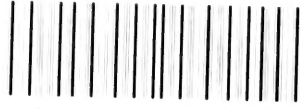








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