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OF
NATURAL HISTORY
MANUAL

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FIELD MUSEUM OF NATURAL HISTORY, *Ch. 107*

MANUAL



CHICAGO, U. S. A.

NOVEMBER, 1922

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SIMPSONS

19 Ja 39

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*“Oh mickle is the pow’rful good that lies
“In herbs, trees, stones, and their true qualities:
“For nought so vile that on the earth doth live,
“But to the earth some secret good doth give.
“And nought so rich on either rock or shelf,
“But, if unknown, lies uselesse to itself.
“Therefore who thus doth make their secrets known
“Doth profit others, and not hurt his own.”*

Romeo & Juliet, Act II, Scene III.

FOREWORD

This review has been prepared in order to supply a constant demand for information concerning the foundation, the endowments, and the activities of the Museum. It contains brief references to the exhibits in the departments of Anthropology, Botany, Geology and Zoology, the activities of the N. W. Harris Public School Extension, and the Library of the Institution. A list of contributors to the Museum, and a short account of the more important expeditions undertaken, are also given.

The Museum is the property, by free gift, of the people of Chicago. It is the aim and ambition of the Trustees and Staff to maintain high standards of museum technique and efficiency, and to develop, still further, the educational influence of the institution. It is realized that a well conducted and equipped natural history museum is a people's university; a means of culture and recreation.

D. C. DAVIES, DIRECTOR.

November 1, 1922.

FIELD MUSEUM OF NATURAL HISTORY

FOUNDATION AND EARLY DEVELOPMENT

The story of the phenomenal rise of Chicago as a commercial and industrial center is a romance that has few equals in the history of the cities of the world. It is too well known to need repetition here. As far back, however, as the early eighties, there existed a feeling among a group of public spirited citizens, who had the best interests of the city at heart, that the growth was not proportional. They were conscious that, to secure the future welfare of the community, proper facilities for popular education and culture should be provided. This feeling crystalized into a determination to construct and equip a great Museum which would make science and knowledge, in their most interesting and fascinating form, accessible to every member of the community.

In 1891 preliminary steps were taken to attain this end, and the Columbian Historical Association was formed. The preparations for, and the holding of the World's Fair in 1893 caused the project to remain in abeyance for a time; but on August 11th of that year the Directors of the Exposition appointed a committee composed of George R. Davis, H. N. Higinbotham and James W. Scott to form a nucleus of representative citizens who were interested in the matter. This resulted in the formation, on August 21st, 1893, of "The Columbian Museum of Chicago" and articles for its incorporation were prepared.

The number and the value of the exhibits shown at the World's Columbian Exposition, and their fitness for museum purposes, was an opportunity to establish a museum on a large and liberal scale, of which the committee was not slow to avail itself. The great nations of the world, after a long period of peace and prosperity, had reached a high state of artistic and industrial development. The competition and rivalry resulted in each nation producing and exhibiting its best; the display of material was consequently unsurpassed. The pioneers of the Museum determined that the most important and valuable of these exhibits must remain in Chicago.

The task of acquiring valuable collections was conducted with great zeal; but the expense was great, and it was not until October 26th, when it was announced that Marshall Field had given one million dollars to the institution, that the future of the Museum was assured. Two days later, George M. Pullman and Harlow N. Higinbotham each subscribed one hundred thousand dollars, and Mrs. Mary D. Sturges gave fifty thousand dollars. Holders of stock in the World's Columbian Exposition gave shares to a par value of one million, five hundred thousand dollars.

Several valuable collections were then purchased and numerous gifts of exhibition material were received. The first notable contribution of this character was that of Mr. Edward E. Ayer, who presented his anthropological collection valued at over one hundred thousand dollars.

The Palace of Art, most beautiful of the World's Fair buildings, was secured as a temporary home for

the Museum, and the exhibits were assembled in this building. Frederick J. V. Skiff was given temporary charge of the onerous task of classifying the great mass of material, and was later made Director. The exhibits were practically installed by May 1st, 1894; and on May 21st, the Trustees changed the name to "Field Columbian Museum." The doors were opened to the public for the first time on June 2nd, 1894.

With the Museum an accomplished fact, the Trustees began the work of development, in the course of which it was found advisable to make a number of changes in the original plans. At the time the Museum opened, its main purposes were: "the accumulation and dissemination of knowledge, and the collection and preservation of objects illustrating the various phases of Art, Archaeology, Science and History." Under this plan, however, the collections rapidly grew to such proportions that the Trustees finally decided it would be advisable to limit the collections to the sciences of Anthropology, Botany, Geology and Zoology. As a result of this decision, there was a general readjustment, and much valuable material was distributed among other institutions. The name was then changed to that used today, Field Museum of Natural History.

Although the exhibits were only placed in the old World's Fair Building temporarily, it was twenty-seven years before they were finally housed in the magnificent structure which is now their permanent home.

Mr. Marshall Field's interest in the Museum never flagged, and his earnestness was demonstrated in his will, which provided a bequest of eight million dollars, one half of which was for an endowment fund, and one

half for a building, the plans of which were completed and approved before Mr. Field's death in 1906. By the terms of the bequest, the city of Chicago was to provide the site for the new building; and the location finally chosen was at the foot of Roosevelt Road, on the Lake front, a spot easily accessible from all parts of the city. The construction of the building was begun in 1915 and completed in 1920.

Transportation of the exhibits from the old building to the new, a distance of six miles, was a task of herculean proportions. Many of the exhibits had to be handled with extreme care. Some were of great bulk, others of great weight. The exhibition halls of the old building were left untouched and open to the public until about a month before the transfer began. Spur tracks were laid across Jackson and Grant Parks, connecting the two buildings with the Illinois Central Railroad. The transfer was made by rail and by motor trucks. The exhibits furnished full loads for three hundred and twenty-one box and flat cars, and more than three hundred and fifty capacity loads for five-ton motor trucks. The new building was formally opened to the public on May 2nd, 1921.

THE NEW BUILDING

The building which houses the exhibits of Field Museum of Natural History is a beautiful structure of white Georgia marble, classic in design and massive in proportion.

The main architectural motives of the building were inspired by the Erechtheum, one of the noted temples of the Acropolis group in Athens and generally recog-

nized as the most refined example of the Ionic order. This ancient building which combined the sanctuaries of Erechtheus and Athena Polias, stands upon the spot where, according to Greek mythology, the contest for the possession of Athens between Athena and Poseidon took place. After the burning of the original building by the Persians in 480 B. C., the rebuilding of the structure was begun, and it is supposed to have been finished about 407 B. C. It is particularly famous for the decorative use of caryatids.

With this classic structure as a prototype, the architects, D. H. Burnham and Co., designed a monumental building. After the death of Mr. Burnham and the dissolution of the firm, the task was continued and completed by its successors, Graham, Anderson, Probst and White. It is seven hundred feet long, three hundred and fifty feet wide and approximately ninety feet in height. The north and south facades are divided into a large pedimented central pavilion and two long wings, having a complete series of Ionic columns running throughout their length, and terminated by smaller pavilions at each end. This order rests upon a basement story, and is crowned by an attic pierced with windows.

An attractive feature of the exterior is the terrace, sixty feet wide, extending all the way around the building and rising six feet above the ground. This terrace has a retaining wall, steps and balustrade of the same marble as the building proper. The main entrance is provided with an ample flight of steps leading up to the central doorway, and is emphasized by the decorative flagstaffs placed on the terrace at the east and west.

When various projects, now under way, are complete, the building will stand in a parked area of great attractiveness, and will be easy of access by a series of boulevards, the Illinois Central suburban service, by street cars, and the Elevated System.

The interior of the Museum building consists, in its general arrangement, of a great central hall or nave, flanked by transverse exhibition halls on both sides; these exhibition halls being again united by halls running parallel to the nave at each end of the building. The central hall rises to the entire height of the building. The rest of the structure is divided into floors, all of which are devoted to exhibition purposes, except the third floor which is used as working space for the scientific staff.

The central hall, which is dedicated to Mr. Stanley Field, President of the Museum, contains four exceptionally fine statues designed by Mr. Henry Hering. These figures symbolize the purposes of the Museum, and blend with the architectural treatment of the hall. The figures flanking the north archway represent Natural Science and the Dissemination of Knowledge; those at the south typify Research and Record.

The JAMES SIMPSON THEATRE, which was built with funds provided by Mr. James Simpson, and a lecture hall occupy the western portion of the ground floor. They are reached by a special entrance from the west terrace, and also by a broad stairway from the first floor.

The theatre is one hundred feet long, ninety-five feet wide, and twenty-three feet high. It seats one thousand and fifty-two persons. The architectural treatment is in accord with the rest of the building, and

is Greek in character. The central seating space is surrounded on three sides by a Doric colonnade forming lobbies fourteen feet wide. The fourth side is occupied by a stage adapted for the use of stage settings, moving pictures or a speaker. The lecture hall, to the north of the vestibule, seats two hundred and fifty persons.

The Museum building was planned and designed to provide for the following: first, perfect exhibition rooms for the display of scientific collections; second, adequate housing and equipment for the scientific and working staffs which must accompany such collections; third, a building which would attain the high standard of Greek architecture, and hold a worthy place among the monumental structures of Chicago.

EXHIBITS

Exhibits in Field Museum of Natural History have been gathered by collectors who have specialized in the respective departments of the natural sciences. These collectors have been dispatched to many parts of the world for the purpose of accumulating exhibition and study material. Those who planned this work have adhered so closely to their clearly defined purposes, that the Museum is noted for its exactness and purity of method, and the material exhibited in the Museum is becoming more and more appreciated for its attractiveness, coordination, high educational value and economic usefulness.

The exhibits are grouped into four departments under the general classifications of Anthropology, Botany, Geology and Zoology. The collections in each department are definitely arranged under their respective divisions. All exhibits are provided with brief

descriptive labels for the information of the visitors. A necessarily restricted outline of the exhibition material in the Museum follows:

Stanley Field Hall, which occupies the nave of the building, contains representative exhibits from each of the departments of the Museum. These exhibits are intended to give a general glimpse of the activities of the institution as a whole, and to serve as an introduction to the systematic collections in the exhibition halls. The visitor, on entering the Museum, finds himself at the north end of this hall, and from here it is easy to find his way to any of the other halls.

ANTHROPOLOGY

Few sciences are of more absorbing interest than that of Anthropology. To trace the evolution of man, from the dim ages of the past, when he was scarcely more responsible than the beast, fumbling and groping his way onward through the darkness, now making good progress, now halting, but ever struggling blindly onwards, is an education in itself. The rate of development has proceeded unequally, in wave-like formation. It is therefore possible at the present time to meet man in most of the various phases of development. Even on our own continent men living under conditions that obtained in the stone age may be met in some of the remote districts. The exhibits in this Department are intended to show the various stages of evolution in which the various races of the world are to be found; the degree of culture and enlightenment to which they have attained; and to show, from their past history, the path they trod to reach that stage.

Entering the Mary D. Sturges Hall immediately to the east of the nave, we find ourselves among the

Eskimo, whose culture is based principally upon hunting the seal and the whale. Therefore, the proper note is at once struck in the first exhibit we meet, a life-sized model of an Eskimo hunter, seated in his frail but buoyant kayak, his spear upraised and poised ready to strike his prey. His boat, his costume, the paraphernalia of his trade placed before him on the miniature deck, are complete and correct to the last detail. Passing on, we come to other groups illustrating other aspects of their life. They are to be seen cleaning skins, for which they find numerous uses; laboriously drilling holes in ivory; returning home from hunting with a seal on a sledge which is drawn by huskies. To the left an Eskimo girl is fishing through a hole in the ice. Round about are examples of the skin-clothing they make for themselves, their implements and their utensils.

Further on we come to the Kwakiutl Indian and a model of his residence. One group is intently playing the Guessing Game. A Cannibal Dancer of the same tribe is a fine study,—his fierce emotions being vividly expressed in his face.

In the next hall the Salish Tribes are represented, who form a cultural link between the tribes of the North West Coast and those of the Woodland area. The house group represents the Indians very busily engaged in their domestic industries of basket and mat making, preparing skins and cooking food. The inevitable baby is slung in a cradle suspended at the end of a long branch. Some of the headgear in the cases around this model might give valuable suggestions to a modern milliner in search for the "latest thing" in bonnets. Sauk and Fox Indian homes are shown in blazing summer sun and in winter snows.

Here and there in his ceremonials it is possible to catch a glimpse of the soul of the Indian. His instinct for worship, groping in the darkness for the unknown god, can be seen in the background of his crude but romantic rites. This is especially true in the case of the Pawnee sacrifice to the morning star, the thunder ceremony, the purification of the sacred bundles, and the ritualistic setting of the many altars which are illustrated in the various halls. Other collections portray clearly the life and the culture of Indians of the Great Plains and the Indian tribes of Arizona, Mexico and California. The Hopi Group is especially well staged. They are seen at home busily preparing food, weaving, basket making, etc., giving an impression of industry which is, perhaps, in excess of the truth in actual life. Hopi dolls are much in evidence. A Hopi bride in bridal costume looks charming, but the Hopi dancers in their weird masks and barbaric clothing are grotesque in the extreme.

And yet, this ferocious get-up has a distinct significance. Wherever, north, south, east or west, are found tribes in the earlier stages of development, there also will be found the symptoms of a vague indefinite, yet very real, sense of fear clutching at their hearts. Their idols and their worship of them invariably reflect this subconscious terror of the unknown. When, for the purpose of their ceremonials, they put aside their own personalities, they generally clothed themselves in garments and masks which were calculated to produce in their neighbors and their enemies the ever-present sense of fear that lurked just below the surface in their own lives. The Museum is particularly rich in exhibits of such emblems. The masks of

New Guinea, including the huge towering structures of feathers and grass, should be noted.

War and worship seem to be closely allied in the life of primitive man. Instruments of offence and defence, laboriously fashioned and cunningly wrought, are to be seen on every side. Boomerangs, clubs, spears, bows and arrows, axes, knives, all are shown in infinite variety. As man develops he introduces ornamentation in to his weapons, his clothing and his utensils. The American Indian, in particular, lavished much of his time on personal decoration. A splendid collection of Navajo blankets is seen in cases 33-38.

A study of the inhabitants of the Philippine Islands is of peculiar interest, and the characteristics and life of the principal tribes are well illustrated in Hall 9. A model of a Tinguian village gives a kind of a bird's eye view of the form of their houses,—airy structures on stilts,—and the villagers performing the ordinary callings of a workaday life. The smithy group is lifelike, but what strikes the observer as extraordinary is that, while they have invented an excellent bellows made of two cylinders with hand-worked pistons, they still retain a primitive sledge hammer made of stone. A loom and spinning wheels are exhibited, which display a considerable proficiency in the art of weaving. Their basketry is fine and splendid specimens are to be seen.

A realistic view of a Bontoc Igorot village of thatched huts is shown. One villager is feeding his pig; others are at work in the smithy; others are weaving. They have a very interesting system of irrigation, which is shown. Another group shows their women making and glazing pottery. The Negrito, the

Philippine aborigine, possesses wicked-looking fighting knives and other weapons. The Mohammedan Moros, also, are evidently a tribe of warriors. Their suits of armor are finely made and their cannon, varying in size from that of a pistol upward, are elaborately ornamented.

The islands of the Pacific, about which so much is written at the present day, are well represented in Joseph N. Field Hall and would well repay a careful examination.

The Egyptian collection is to be found on the ground floor. The Museum is indebted for the material exhibited in this section to the generosity and the efforts of Edward E. Ayer, a trustee of the Institution, who collected it during several visits to Egypt. Here is a different race and a different civilization to those we have already seen. Today, with the exception of the Pyramids, the Sphinx and a few ruins, nothing remains of a people that in its day was the most cultured on earth. Life beyond the grave was one of the chief tenets of their religion. Indeed, in their passion for immortality, they came near to achieving immortality for their mortal bodies; for here we find bodies brought across thousands of miles and thousands of years with the paint as fresh on their coffins as when they were buried in the days of long ago in the land of sun and sand, and without a trace or sign of bodily corruption. In many cases their names are known. Here lies a lady named Tinto who lived at Thebes a thousand years before Christ was born. Not far off is a lady called Men, who was related to the Theban priests of Ammon. Pidi-Mut, who was for years a door-keeper of a temple at Thebes, rests close by. The process of mummification was not

perfected in a day as may be seen. A pre-dynastic mummy from Luxor shows the primitive form of the process. It lies on its side huddled up, its hands closed as if in prayer, a pitiful heap of skin and bones. Later the body was swathed in linen bandages, which in subsequent years, were further covered with papier-maché—the portrait of the dead person being painted on the outside, and on the coffin. Here may be seen an ancient cedar-wood mortuary boat, which conveyed the dead, in the time of Sesostris III, from Dashur across the Nile to what they believed to be their last resting place. An object of great interest is the curiously-cut leather corselet of a priest of Thebes, it being one of the only two in existence. In the excitement of the funeral these important garments were evidently overlooked, and were not discovered until the body had been buried. A square hole was then cut in the rock door of the tomb in which the corselets were sealed, which accounts for their preservation in a perfect condition. The Egyptian, like most of the ancients, believed that the life beyond continued without a break, under the same conditions as those on earth, hence their anxiety to take the good things of the world with them. A princess had her two pet antelopes placed in the grave with her; much of the most treasured property was buried in their owner's tomb for future use. All around are specimens in great variety of objects of art and use of the various periods.

Etruscan, Greek and Roman antiquities of great variety and interest are exhibited in Edward E. Ayer Hall. It is impossible not to admire the simple, strong, yet highly artistic, qualities these exhibits display. Worthy of special attention are the Etruscan bronzes, the alabaster sarcophagi, burial urns, the funerary

couch, the Roman objects in silver and bronze, the Pompeian finds, the wall paintings, the surgical and musical instruments, ewers, seats and furniture.

More familiar to most Americans are the Chinese and Japanese peoples. Yet a visit to Frank W. Gunsaulus and other halls will delight all who admire Eastern art in its many aspects. The Blackstone expedition of 1908-10, with Dr. Berthold Laufer at its head, penetrated far into the forbidden land of Tibet, and returned laden with treasures from Tibet and China, which are now on exhibition at the Museum. The gorgeous dresses and hideous masks which the Tibetans use in dancing to cast out demons and devils are fully representative. People who thought that the Tibetan was the filthiest of men, will be surprised at the culture shown in many of the exhibits. China and Japan are also well represented. The Chinese shadow plays and their actors' dresses and masks are very interesting. The representation given of the Chinese Purgatory varies considerably in conception from those of Virgil, Dante and others. In the Japanese collection, the examples shown of the art of Hokusai and his followers are worthy of study, as also are the ware, the sword guards, swords, tapestries and women's costumes.

The above brief and casual account of a few items in the Anthropological Department of the Museum is intended merely to indicate the value and the interest of the exhibits. When it is stated that the number of exhibits in this Department alone is over 160,000, each of them worthy of careful examination, the extent and the scope of the various collections will be readily imagined.

BOTANY

In the Department of Botany, as in all other departments of the Museum, every effort is made to present the exhibits in an attractive and comprehensible manner, with the idea of popularizing the science as far as possible. The exhibits fill five halls; and it is an interesting point in this connection, that this is the first time in the history of natural history museums, that botany has been given space comparable with that allotted to other departments. In every case, the economic products of the plant are stressed, thus making the exhibits, not only instructive to the student or casual visitor, but of actual value to the business man.

In the arrangement, the underlying purpose is to present the natural succession of plant life from the lowest orders to the highest. This succession is illustrated particularly in Hall 28. When plants are microscopic, an enlarged reproduction is used to reveal their character. In flowering plants, a complete or large portion of a characteristic plant of each family is reproduced in natural size. Following this, an enlarged flower in section reveals the more minute floral characteristics of the family, and fruits peculiar to the family are shown. Wherever possible, preference is given to a species generally known to the public.

• The reproductions have all been made in the Museum by a staff of artists working in a series of laboratories founded and supported by Mr. Stanley Field. They are made up of exact casts of each part of the original living plant; and in their truth to nature, life-like appearance and freshness, they form a collection unique in the museums of the world.

These plant life studies are associated with such products as may be yielded by the plants of the family, and utilized by man in the arts, industries, or as food. Exhibits of this type follow through Halls 28, 29 and 25. The specimens illustrating the products are in quantities proportionate to their use. For instance, a little used gum or resin is illustrated by a single specimen; Indian corn by twelve whole cases. Another valuable fact demonstrated is that the products of plants in each family are as distinct in their uses, as the plants themselves are in their botanical character. It appears, for example, that if one member of a family yields a dye, other members are likely to yield dyes.

There are two other halls in the department. One of them is devoted to the timbers of the world arranged geographically, the woods being partly in their natural condition and partly finished to show their character in cabinetry. The display of Japanese woods is the most complete ever brought together. The second of these halls is devoted to the trees of North America. The diameter of the specimens selected are one half of the average diameter of the respective species exhibited. Each species is installed in a separate case. Labels and maps are attached which supply complete information. In the center of the hall is a red-wood trunk of half the diameter to which the species grows.

The herbarium is on the third floor. It contains more than 500,000 specimens. They are accessible, on application, to those who are specially interested.

GEOLOGY

The Geological material is assembled in two collections,—the one arranged according to the scientific,—the other according to the economic or industrial standpoint. The scientific classification is that usually followed in school and college text books. The economic arrangement, on the other hand, groups the materials, irrespective of their scientific order, according to the uses to which they are put.

The first portion of the collection is the mineral group which is classified according to Dana's order. Then follows the W. J. Chalmers crystal collection showing the different forms of the crystallization of minerals. The meteorite collection which comes next is the largest in the world and contains examples of more than half of the known meteorites.

The physical geology section illustrates the structure of the earth's surface and the effects of the various natural forces on the materials of which the earth is composed.

The rock collection is very extensive, consisting of specimens of uniform size, grouped according to kind and composition. :

Geographic geology is illustrated by means of some sixty relief maps and models, which include representations such as the Yosemite Valley, Niagara Falls, the Grand Canyon and the Natural Bridge of Virginia.

In the section of Historical Geology, the development of life on earth from the age of the simplest invertebrates to that of man is followed in historical sequence.

The economic exhibits in Frederick J. V. Skiff Hall consist of collections of the ores of precious and

base metals, marbles and building stones, and abrasives, alkalies, salts and phosphates. In Hall No. 36, coals, petroleums, and other hydro-carbons and their products, economically important clays, soils and sands are exhibited. Models and diagrams show the method and devices adopted by man in utilizing these substances.

H. N. HIGINBOTHAM HALL

Here is displayed one of the most complete collections of gems and jewels in existence, containing, as it does, nearly every known gem or precious stone, in the finest cut examples, as well as crystals, cleavages and rolled grains. Many of the objects are of historical interest and world-wide reputation. Among these is a diamond, on which the bust of William II of Holland was engraved by DeVrees of Amsterdam. The Hope aquamarine is a beautiful gem weighing $331\frac{5}{8}$ karats. The Tiffany aquamarine should also be inspected. Among the opals should be noted the famous Sun God Opal from the Hope collection. Special attention should be taken of the Russian topazes, the cut amethysts, and the uncut Chilton emerald crystal. A thin section of rock crystal, $9\frac{3}{5}$ inches in diameter, forming a screen on which is engraved "The Finding of Moses," is believed to be the finest thing of its kind in existence. A valuable collection of crystallized and wire gold and gold nuggets is exhibited.

The nine cases arranged on the walls are worthy of careful inspection. They contain Egyptian and classical jewelry, Greek and Roman cameos and intaglios, a remarkable collection of jewelry from India, and pre-historic American gold ornaments.

ZOOLOGY

Exhibits of the Department of Zoology occupy the western half of the main floor of the Museum. They comprise representative and extensive displays of the animal life of the world, from the lower invertebrates to the highest mammals. These are so arranged that four large halls are devoted to mammals, two to birds, one to fishes, reptiles and marine fauna, one to shells and insects, and one to osteology.

Mammals are arranged in two series, one being systematic, to show one specimen of each of the principal species; the other being in habitat groups, showing several animals of the same species in natural surroundings, and illustrating the habits and characteristics of that particular species. Thus, in the hall of systematic mammals one finds a classified series showing the species grouped according to their natural relationships, from the curious egg-laying ornithomimus to the gorilla, chimpanzee and other man-like apes. Any particular species is to be found, properly placed, with those to which it is most nearly related.

In addition to the hall of systematic mammals, there are two halls of habitat groups. These are doubtless the most attractive features of the zoological exhibits. Most important is the hall of African game animals, containing the principal masterpieces of the well known taxidermist and sculptor, Carl E. Akeley. Among the groups in this hall are the African buffalo, koodoo, wild ass, zebra, hartebeest, wart hog and various antelopes. There are two African elephants, also the work of Mr. Akeley, which occupy the central space in Stanley Field Hall. The animals were secured by the Museum's expeditions to Somaliland and British

East Africa. In technical quality of workmanship, in artistic arrangement and in fidelity to nature, these groups set a high standard in taxidermy.

Next in importance to the African groups are those of the larger American mammals, chief of which are four groups of Virginia deer, illustrating the habits and appearance of the animal at the four seasons of the year. Other American groups show the moose, bison, prongbuck, grizzly bear, musk ox, polar bear, mountain sheep and beaver.

The systematic collection of birds is arranged in two sections. In the first, every family of birds extant in North America is represented. In the second are birds from foreign countries.

The hall of habitat groups of birds contains a series of beautiful mountings with large painted backgrounds and a complete representation of natural surroundings. Among the species represented in these groups are the golden eagle, California condor, northern loon, whooping crane, wild turkey, white pelican, flamingo and various gulls and terns.

Fishes are well represented. Of special interest are cases of Atlantic and Pacific game fishes, and Chicago market fishes. The larger part of the collection is arranged systematically. The display of reptiles and batrachians, while not extensive, includes a number of celluloid models of small snakes, frogs and toads, which are of unusual excellence.

The osteological collection is large and comprises complete skeletons of individuals from almost every important group of vertebrates. Of particular interest are the skeletons of the primates and of the right whale.

In addition to the public exhibition collections, the Department of Zoology has large research or study collections, which are accessible to specialists and students, and which, upon application, may be consulted by anyone interested. The research collection of mammals contains about 23,000 specimens, and is one of the most important collections of its kind in the world. The collection of birds numbers some 54,000 specimens, and is particularly rich in West Indian and South American examples. The fish and reptile collection is large, and includes much material from Central America. The insect collection is largely local, except in the case of butterflies and moths, of which there are more than 50,000 specimens from all parts of the world.

N. W. HARRIS PUBLIC SCHOOL EXTENSION OF FIELD MUSEUM OF NATURAL HISTORY

The N. W. Harris Public School Extension of Field Museum of Natural History is, in effect, a traveling museum. Study of the records of attendance showed that the number of school children who visited the Museum had never been as large as was desired. In order to extend the educational influence of the Museum among these children, an endowment of two hundred and fifty thousand dollars was provided by the late Norman Wait Harris. Later twenty-five thousand dollars was added by the heirs to the Harris estate. The interest on this benefaction is being expended in the preparation of cases containing attractive and instructive exhibits of specimens, which are circulated among the public schools by means of a specially designed motor car. There are now about eight hundred

cases; and they are sent to the schools in groups which are frequently changed.

The value of these exhibits has been summed up by Doctor Maria Montessori, who, after careful inspection of typical cases, made the following statements in an unsolicited letter:

"I admire very much the way in which nature is interpreted in this exhibit. The units attract the child's attention and do not teach errors. They truly represent nature.

"I consider the collection a most desirable contribution to school work and education generally. I hope that many more of these beautiful exhibits may be made."

Ten typical cases of this series are exhibited in Stanley Field Hall. The success of this movement has been greatly aided by the hearty coöperation given by the superintendent, principals and teachers of the schools of Chicago.

THE LIBRARY

The work of the Museum Library, briefly told, is to supplement the Museum collections and to facilitate the work of the Scientific Staff. As the Museum seeks to interest and instruct its visitors in its exhibits, so the library endeavors to supply books descriptive of those subjects; for no exhibit, however carefully or fully labeled, can give all the information that may be desired by a specially interested visitor.

The library is divided into four sections, corresponding to the four departments of the Museum. In the section of the Department of Anthropology may be found books pertaining to the history of the American Indian, the natives of the Philippine Islands, Mexico,

Central and South America, India, Japan, China, Egypt, etc. In the Botany Section are books treating of the form of plants, their structure, the nature of the tissues of which they are composed, their classification and distribution. The Department of Geology is equipped with works on the science of the past and present conditions of the earth, with special reference to the physical changes which it has undergone, or which may still be taking place. Here may also be found books on minerals, gems, semi-precious stones and meteorites. The Department of Zoology has interesting books on mammals, reptiles, insects, birds and fishes of every known species. The Edward E. Ayer library of ornithology forms a special collection of great value, and covers its subject to a degree unequalled except in a few of the largest libraries of the world. It is especially rich in large sumptuously illustrated volumes and series. Another special collection, presented by Mr. Ayer, is devoted to angling and ichthyology. It includes some fifteen hundred volumes.

In the general reading room, connected with the library, are files of the current scientific periodicals as well as the memoirs, transactions and other publications of learned societies throughout the world. Here also are the more general reference books for the use of those whose time is limited.

The curators of all departments cooperate with the library and, whenever necessary, specialists are accessible for expert advice.

This merely suggests the resources of the library which offers, for reference, free to the use of museum visitors, some eighty thousand books and pamphlets.

PUBLICATIONS

The issue of a series of publications was begun early in the history of Field Museum of Natural History. These have been published in the following series: Report, Anthropological, Botanical, Geological, Ornithological and Zoological. More than two hundred have been published up to the present. Among them are excellent treatises and monographs, as well as numerous reports of discoveries of scientific interest. These publications have a wide circulation among other museums, scientific societies and educational institutions, with which an exchange system has been established. A list of the publications may be had on application to the Director.

Lately a series of illustrated leaflets of a popular type has been started. These treat of interesting exhibits, some of them being economic in character.

Since its removal into the new building, the Museum has installed presses and now does its own printing, and photogravure work.

EXPEDITIONS

The vitality of most institutions may be gauged by their activities, and this is true even of museums. The world is a vast treasure-house filled with an inexhaustible store of riches, which await the arrival of the trained investigator who alone is able to recognize the value of these gems in the rough. All great museums have expeditions in the field, searching diligently for treasures of various kinds. Field Museum of Natural History holds a proud record for field investigations during its short history. It has extended its expeditions, like tentacles, to practically all parts of

the world to gather specimens and exhibits for the Institution. Up to the present about 275 expeditions have been sent out, many of which have been financed by gentlemen whose names are given on another page.

It would be comparatively easy of course to buy a number of the exhibits, but the Trustees have realized the importance of personal exploration by their staff. It is only in this way that the best and authentic material can be collected. A large expense and a great deal of labor and hardships are incurred, but it is felt that in no other way is it possible to obtain proper results.

The Blackstone Expedition under the leadership of Dr. Berthold Laufer spent three years (1908-10) in China, and the comparatively unexplored country of Tibet, and some of the most interesting exhibits in the Museum were discovered and brought back by it. The R. F. Cummings expedition worked five years in the Philippine Islands studying the customs of the various tribes and making collections. Under the leadership of Dr. George A. Dorsey, archaeological material was collected in Egypt, and ethnological exhibits obtained from India, Ceylon, Java, Australia, New Ireland, Buka, Bougainville, New Guinea and the Philippines. Islands of the South Pacific Ocean were visited by the Joseph N. Field expedition beginning in 1909 and remaining at work until 1913. Expeditions financed by Captain Marshall Field are now studying the archaeology, botany, geology and zoology of South America, and the Arthur B. Jones expedition is at work in Sumatra, Java and Borneo. Exhaustive study of the Indians of North America, Mexico and Peru has been made by a number of expeditions.

Several expeditions have gone out under the direction of Dr. C. F. Millspaugh, Curator of Botany. In 1894 and 1895, Mr. Allison V. Armour took expeditions to the West Indies and Yucatan in his yacht, *Ituna*, and to the same localities again in 1898 and 1899. During the years from 1904 to 1911, with the exception of the year 1906, the flora of all of the Bahama Islands was studied. In 1911 and 1912, an expedition made collections in Japan, China, the Philippine Islands, Java, Ceylon and India. Collections were made on all of the Florida Keys during 1904. There have also been numerous botanical expeditions sent to all parts of the United States.

In connection with the work of the Department of Geology, Dr. Oliver C. Farrington has conducted expeditions into Mexico and various parts of the United States, and is at present engaged in the collection of minerals in South America. H. W. Nichols has made collections of ores and minerals during several expeditions through the Mississippi Valley, the Appalachian Mts., etc. E. S. Riggs and his associates have collected paleontological specimens in Colorado, the Dakotas and Alberta, Canada, and have recently embarked on an important expedition to Patagonia.

Several large expeditions have been sent out by the Department of Zoology. The first African expedition, which went to Somaliland in 1896 and 1897 under the leadership of Dr. D. G. Elliot and Carl E. Akeley, was especially fruitful in results. It obtained material for most of the fine groups of African mammals now on exhibition. A second African expedition was in the field during 1906 and 1907, headed by Carl E. Akeley and Edmund Heller. This expedition obtained some 2,500 specimens. Fishes were collected in Mexico and

Central America by Dr. S. E. Meek, and unusually complete collections were obtained. Commencing in 1908, eight expeditions were sent to South America, where most of their attention was devoted to mammals and birds. One of the largest of these expeditions, under the leadership of Dr. W. H. Osgood and M. P. Anderson, crossed South America from Peru to the eastern coast of Brazil. Later, field work was done in eastern Brazil by M. P. Anderson and R. H. Becker. At present an expedition headed by Edmund Heller and J. T. Zimmer is at work in Peru.

INCOME

The income for the support of the Museum is derived from several sources. The citizens of Chicago have confirmed legislation for the levy of a tax which provides approximately \$100,000 yearly. There is also an endowment fund of about \$5,000,000, the interest of which is used. Other receipts come from the interest on a gift of \$50,000 from Mrs. Mary D. Sturges, from memberships and from small amounts paid in admissions.

Expeditions are financed largely by special contributions. Among those who have given funds for this purpose are: Joseph N. Field (South Pacific Islands); Allison V. Armour (West Indies and Yucatan); Mrs. T. B. Blackstone (China and Tibet); Stanley McCormick (Arizona-Hopi); Stanley Field (British Guiana); Captain Marshall Field (South America); Arthur B. Jones (Malay Archipelago); and Robert F. Cummings (Philippine Islands).

ARTICLES OF INCORPORATION.

STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSEN, *Secretary of State.*

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS :

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 :

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, 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 Zoology; 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 of 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.

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.

LIST OF CONTRIBUTORS TO THE MUSEUM OF \$1,000 AND OVER

- | | |
|---|---------------------------|
| *MARSHALL FIELD | WILLIAM WRIGLEY, JR. |
| STANLEY FIELD | WILLIAM J. CHALMERS |
| EDWARD E. AYER | AMERICAN EXPRESS CO. |
| CAPT. MARSHALL FIELD | CARSON, PIRIE, SCOTT AND |
| *NORMAN W. HARRIS | Co. |
| JAMES SIMPSON | JAMES J. HILL |
| *HARLOW N. HIGINBOTHAM | CYRUS H. MCCORMICK |
| *GEORGE M. PULLMAN | HOMER E. SARGENT |
| *MARY D. STURGES | STANDARD OIL CO. |
| *JOSEPH N. FIELD | COL. ALBERT A. SPRAGUE |
| MRS. T. B. BLACKSTONE | *FREDERICK J. V. SKIFF |
| CHARLES R. CRANE | MCCORMICK HARVESTER |
| ARTHUR B. JONES | MACHINERY CO. |
| MARTIN A. RYERSON | SWIFT AND CO. |
| NORMAN W. HARRIS (heirs
of the late) | MRS. FRANCES E. OGDEN |
| CHICAGO CITY RAILWAY Co. | DRAKE, PARKER AND CO. |
| STANLEY MCCORMICK | HIBBARD, SPENCER, |
| ROBERT F. CUMMINGS | BARTLETT AND CO. |
| MARSHALL FIELD AND Co. | MERCHANTS LOAN AND |
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| *PHILIP D. ARMOUR | SCHLESINGER AND MAYER |
| *NORMAN B. REAM | W. G. HIBBARD |
| MARVIN HUGHITT | WATSON F. BLAIR |
| ILLINOIS CENTRAL RAILROAD | GEORGE F. PORTER |
| LAKE SHORE AND MICHIGAN | WILLIAM W. SHAW |
| SOUTHERN RAILROAD | GEORGE MANIERRE |
| *GEORGE E. ADAMS | CRANE Co. |
| CHARLES L. HUTCHINSON | W. DEERING AND Co. |
| *D. K. PEARSONS | J. V. FARWELL AND Co. |
| *LAMBERT TREE | RAND McNALLY AND Co. |
| *J. W. DOANE | REID, MURDOCH AND Co. |
| *RICHARD T. CRANE | SPRAGUE, WARNER AND Co. |
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JONES, ARTHUR B.	SIMPSON, JAMES
	SMITH, WILLARD A.

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HUTCHINSON, CHARLES L.

JONES, ARTHUR B.

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GENERAL INFORMATION

LOCATION

The Museum is situated in Grant Park with the main entrance facing Roosevelt Road extended east. The Illinois Central main and suburban station at Park Row is within two blocks of the Museum. Street car and elevated lines on Wabash Avenue or State Street to Roosevelt Road also provide transportation to within a few blocks of the Museum.

HOURS AND RULES OF ADMISSION

The Museum is open to the public during the following hours:

November, December, January	10 a. m. to 4 p. m.
February, March, April, October	10 a. m. to 5 p. m.
May, June, July, August, September	10 a. m. to 6 p. m.

On Sundays, Thursdays and Saturdays admission is free. On other days an admission fee of 25c is charged. *Children Free.* Students, professors and teachers in attendance at any recognized University, College, School or Institute are admitted free upon presentation of proper credentials. No return admission checks are issued.

MUSEUM GUIDE-LECTURER

At the hours of 11:00 and 3:00, on Monday, Tuesday, Wednesday and Friday of each week, the Guide-lecturer conducts tours through various sections of the Museum. Each tour lasts about an hour and may be taken, without charge, by any Museum visitor. The services of the Guide-lecturer may also be engaged, without charge, by clubs, conventions, classes from public, parochial and private schools, or other parties of ten or more individuals. Written application for this service should be made to the Director of the Museum at least a week in advance of the intended visit.

CHECKING

Canes, umbrellas and parcels must be checked at the entrances. A fee of 5c is charged for this service.

INFORMATION

Information concerning the Museum and its activities may be obtained at the main entrance, where the Scientific Publications

of the Museum, Guides, Photographs and Picture Post Cards are sold.

THE LIBRARY

The Library is open for reference daily except Sundays. The Library contains approximately 80,000 volumes and pamphlets.

TELEPHONE

A Public Telephone will be found to the east of the Main Entrance.

PHOTOGRAPHS

Copies of many photographs made by the Museum photographer are on sale at the main entrance.

Photographing and sketching in the Museum are permitted under certain restrictions, details of which may be obtained upon application at the Director's office.

RESEARCH COLLECTIONS

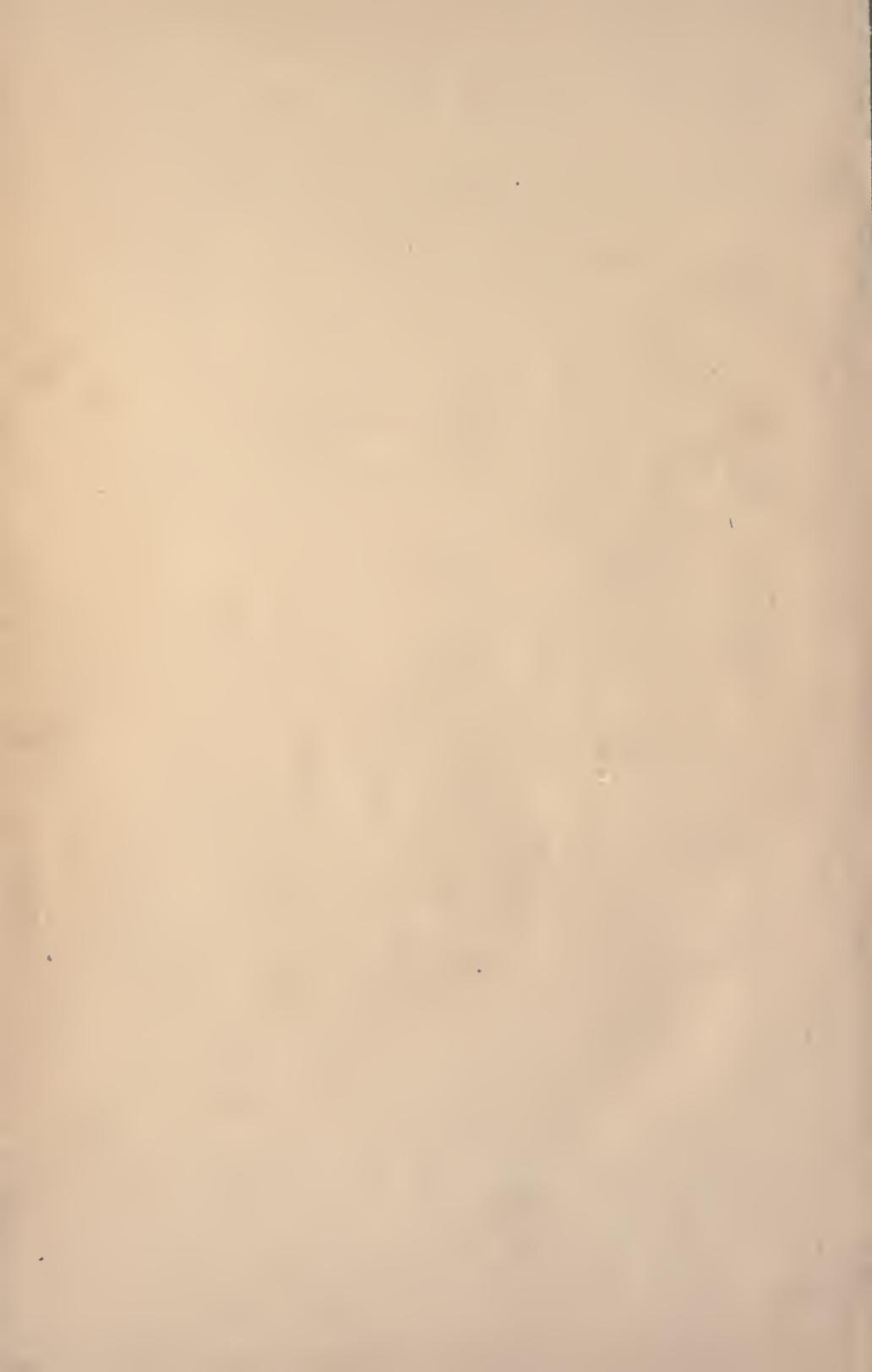
The research collections and laboratories of the Museum are established on the third floor. They are not open to the general public, but may be consulted by students, specialists, and investigators upon request to the Curators in charge.

MEMBERSHIPS

Life members who contribute	\$500.00
Associate members who contribute	100.00
Sustaining members who contribute annually	25.00
Annual members who contribute annually	10.00







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