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UNIVERSITY OF ILLINOIS
14 SEP 1914

REPORT OF THE

Museum of Natural History,

Springfield, Mass., May, 1898.

PART OF THE REPORT OF THE
CITY LIBRARY ASSOCIATION *
FOR THE YEAR ENDING MAY 3,
* * * * * 1898. * * * * *



LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914



**THE SCIENCE BUILDING FOR THE MUSEUM OF NATURAL HISTORY AND THE
CATHERINE HOWARD LIBRARY.**

[The ground was broken for this building May 3, 1898. It will be completed about
November 1, 1898.]

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The Museum of Natural History.

Report of the Curator.

To the Directors and Members of the City Library Association :—

The fourth annual report of the Museum of Natural History is hereby respectfully submitted.

At this time, when the near future is so full of promise for a rapid development of this department of the Association, it seems fitting that the first place in this report should be given to an account of the Science Building, which is now in process of construction and will, it is hoped, be occupied before the next annual meeting

Science Building.

The plans for this structure as drawn by the architects, Gardner, Pyne and Gardner, call for a building of generous dimensions, fifty feet wide by one hundred and fifty feet long. It is placed northeast of the Art Museum and at sufficient distance to permit of the extension of that building in accordance with the original designs. In architectural effect the Museum of Science will make a worthy companion of the structure devoted to art. The materials used in construction are Pompeian brick, Indiana limestone, and terra cotta. A most attractive feature will be the portico at the south end, with its massive foundation and pediment, supported by four columns of polished granite.

In its interior plans and appointments, especial care has been taken to secure economy of space and adequate provision for the different phases of museum work. At the left of the main entrance hall a room has been set apart for the reference library of science to be maintained by the Catherine Howard Memorial fund. Opposite the library will be the office of the curator, where the administrative work of the museum will be centered. Beyond these two rooms is the main exhibition hall, forty-six feet wide by one hundred and twenty-three feet long and over twenty feet high. This room will permit of a simple and systematic arrangement of

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Continuation

the various collections in mineralogy, geology, botany, and zoölogy. A system of skylights will insure a thorough illumination of the room, a most important element in the success of a museum. It is interesting to note that in several of the large museums recently erected in England, the method of lighting from above has been adopted, and that it is growing in favor among scientists. The museum hall is composed of only one story, but the front part of the building contains a second story, which is divided into two apartments. The larger of these is also lighted from overhead, as well as by windows, and will be used for the collections in archæology, ethnology, and historical relics; a smaller room will serve for class purposes and for a work room in microscopy. The interior finish will be simple and attractive; quartered oak wood work will be used, with the exception of the Catherine Howard Memorial Library, which will be done in white enamel.

An especially valuable feature of the new museum will be the basement. Every care has been taken to secure light and freedom from moisture. A large window area has been provided, and, as the basement rises six feet above the grade of the building, this room will serve for the storage of duplicate and study collections, for class exercises, and for the preparation of specimens.

It is desirable at this point, as a matter of record, to review the various stages which have led up to this extension of the facilities of the natural history department. At the annual meeting for 1896, Dr. William Rice, the secretary of the association, made reference in his report to the rapid growth of the collections in natural history and showed that the limits of space for exhibition would soon be reached. Many generous gifts, including the Booth collection of minerals and the material purchased from the Ward collection at the time of the meeting of the American Association for the Advancement of Science in this city in 1895, had made large demands on the room allotted to the museum. At the annual meeting in 1897, Dr. Rice urged the necessity of action on the part of the association to provide for the urgent needs of the department of natural history.

In accordance with these suggestions, at the quarterly meeting of the directors, July 14, 1897, James A. Rumrill, John Olmsted, Samuel Bowles, Luke Corcoran, and Nathan D. Bill were appointed a committee to "consider the need of increased accommodations for the natural history department." This committee reported at the next quarterly meeting, October 13, and a committee, consisting of John Olmsted, vice-president of the association, Nathan D. Bill and Dr. Luke Corcoran, was appointed with power to receive subscriptions for a science building. January 12, 1898, the committee reported that sufficient funds had been received to warrant the association in calling for plans for a building. Thereupon

the directors appointed the following building committee: James A. Rumrill, John Olmsted, Nathan D. Bill, James W. Kirkham, and Dr. Luke Corcoran. On January 17, this committee was given full authority to erect the building, in accordance with the plans submitted by Gardner, Pyne and Gardner. Ground for the new museum of science was broken Monday, May 2, 1898.

At each of the stages by which these results have been attained, the City Library Association, and through that body the community, have profited by the enthusiasm and business sagacity of Vice-President John Olmsted. He has personally conducted, with great skill, the canvass for funds; as chairman of the building committee, he has secured plans for a structure admirably adapted for museum purposes; and has brought to bear on the details of contract and construction his thorough knowledge of men and affairs.

The thanks of the association are due the members of its several committees, who have given much careful thought to the problem. The generous response of the citizens of Springfield to the appeal for funds has also been most gratifying. It now remains to rightly administer the facilities thus offered for the intellectual advancement of the community.

Accessions.

In view of the crowded condition of the cases and floor space, not much effort has been made during the past year to secure additions to the collections. Yet, the kindness of friends of the institution has resulted in the increase of the material in all departments and this growth has further attested that the time is ripe for the new science building. The statistics given in the appendix to this report show that the number of specimens now catalogued is 10,360, an increase of 3,028 over the totals given in the report a year ago. In certain cases, material which has been offered the museum is now held by the owners until adequate room for storage and exhibition shall be provided. The list of donors shows that interest in the museum is extending beyond the limits of the city. A most valuable accession is that of the private collection in mineralogy, geology, and Indian relics given by Luman Andrews, of Southington, Connecticut. It contains 1,034 fossils from different localities in this country and abroad, 1,188 carefully selected minerals, and 503 Indian relics, most of which are from the Connecticut valley. No attempt has been made to place any of this material on the shelves but the specimens will be of great value in completing and enriching the collections in the new building. J. D. Colton, of Longmeadow, has presented a series of interesting specimens which

he collected, while a student at the Michigan mining school, in the Lake Superior copper region. The department of botany continues to enjoy the services of George S. Lewis, Jr., who is arranging much new material to illustrate plant products. Mrs. Ira B. Sampson has given in memory of her husband, Captain Ira B. Sampson, a rich collection illustrative of the trees of America. The specimens were gathered by Mr. Sampson in many different states and consist of wood, leaves, and fruit. This material has been given in trust to Geo. S. Lewis, Jr., who is preparing and arranging it for exhibition. Mr. Gurdon Bill has added to the fine series of bird groups, which he had already given to the museum, three very attractive ones: one representing the nest of the quail among red clover, grasses, and brambles; one a bobolink with the nest artfully concealed; and a very large group, which shows the home of the prairie hen amidst a rank growth of grasses, daisies, and dandelions. In the construction of these Mrs. E. S. Mogridge was assisted by her brother, Mr. H. Mintorn. The prairie hen group is modeled after one made by Mr. Mintorn for the Field Columbian museum at Chicago.

Your attention is also called to the growth in the material illustrative of local geology. J. H. Chase and Gilbert H. Montague of the High School have presented a number of specimens from the trap and sandstone formations on the east and west side of the river. H. W. Butler, manager of the quarry on the Westfield road, has secured for the museum a number of specimens, which illustrate the chemical action of water in solution and deposit of calcite, datholite, and quartz in the crevices of the trap.

In entomology, which is a new department of the museum, Dr. George Dimmock of this city, a specialist of high standing among scientists, is preparing an extensive collection of the insects of this region. He is planning for a systematic collection, and also for special series illustrating stages of development, manner of feeding, mimicry, and other phases of insect life. Such a collection will be of great value both from the educational and the economic standpoint. The zoölogical club is engaged in the preparation of a card catalog of the animal life of this region, and this, when completed, will be placed in the museum.

The university extension society has, out of funds remaining in its treasury, purchased and presented to the association an electric light stereopticon lantern, which is available for the illustration of lectures held in the art building.

A detailed list of accessions with names of donors is given in the appendix to this report.

Lectures and Class Work.

The success which attended the free lectures offered to the public, in connection with the museum last year, has warranted the extension of this side of the work. Last fall, three lectures were given with an aggregate attendance of 605, an average for each lecture of 202. The largest audience was that at Miss M. A. Booth's illustrated talk on "Around the doorstep," when 300 people were present. A special exhibition of minerals from the Samuel C. Booth collection, during the last two weeks in October, attracted many visitors. A class in mineralogy was conducted on Saturday mornings during the winter months by Grace L. Pettis, the assistant curator. Twelve lessons were given on the properties and tests of minerals. The class numbered forty. Members of the class have expressed a wish to continue the work and it is possible that an advanced course will be offered next year.

The courses for this spring, of which an outline has been issued, provide for three lectures on subjects connected with nature study: May 10, Dr. George Dimmock, on "Spring in the insect world"; May 24, Charles G. Whiting, on "The unscientific observer"; May 31, George S. Lewis, Jr., on "Among the trees." These lectures are free to the public and it is hoped that there will be a large attendance.

A field class has been organized for the study of local geology and a series of six excursions will be taken during the spring months. This class promises to arouse much interest in the rocks and structure of this vicinity. The zoological club conducts under the auspices of the museum a series of weekly trips for the study of the fauna of this region. These classes are doing much to increase the interest in science in this community, and thus co-operate with the museum in its educational work.

Attendance.

The following figures for attendance show that the museum is maintaining its hold on the general public:—

Number of days open, 312.

Number of visitors, 28,640.

Largest number on any one day, 353, Memorial day, 1897.

Smallest number on any one day, 42, April 2, 1898.

Daily average for year, 95.

During the year classes have studied the collections as follows:—

City Schools.

Public — 18 classes, 223 pupils.

Private — 3 classes, 26 pupils.

Out of the City.

5 classes, 44 pupils.

	293
Total,	

A number of pupils have been assisted in the study of collections, and aid has been given in the identification of specimens.

Plans for the Future.

With the completion of the new science building, the museum of natural history should be able to increase its influence and to multiply its activities. Only by so doing can the provision made for its accommodation be justified. The various collections will be placed in cases where the specimens can be seen to much better advantage than at present. It is the purpose of the museum officials to select the best of the material now on the shelves and supplementing this with specimens from the Booth and Andrews gifts make up collections of a high grade of excellence. The remaining material will be placed in cases in the basement and used for study and exchange. When the contents of the museum are once decided upon, a card catalog will be prepared for the use of visitors and students. It is also important that a system of cross references to works in the library should be developed and the way thus opened up to the literature on any subject.

For this purpose, the Catherine Howard Memorial Library will be of great service, since it will place at the disposal of the reader, the best American and foreign publications in the field of natural history. The committee in charge of this fund purpose to make this library a most fitting memorial of one whose life was devoted to the intellectual and moral advancement of all whom her influence reached.

It is also to be hoped that this new building will furnish a home for societies and clubs interested in the different branches of science. The botanical society each year does much work in a quiet way; the zoölogical society is planning a most valuable scheme of study; and the interest in local geology is on the increase. The question may be raised as to whether without interfering with the activities of existing organizations, Springfield should not have a representative society for the cultivation of science to which these special organizations should contribute. The City Library

Association, by encouraging and aiding such bodies, can in a most efficient way promote the growth of the community on intellectual lines and foster a love for those studies "which nourish youth and cheer old age ; which adorn prosperity, and are the comfort and refuge of adversity."

These new opportunities for service and development, now crowding so fast upon this unique institution, naturally recall to mind the memory and labors of him who, in such a large measure, made all these things possible. William Rice, in his interest in the museum of science, showed in an eminent degree that broad sympathy and clear foresight which characterized all his work for the association and the community. And herein was revealed the abundant resources of the man. The rapid development of the department of natural history came when his years were many, at a time in life when most men have sharply defined habits of mind and fixed bounds of interest. Dr. Rice, though his attention had been largely centered in books and the work of the library, at every step in the development of the museum showed a quick apprehension of the possibilities of the collections and a fine appreciation of the place of this department in the great work of the association. In his delight over each addition, he showed all the eagerness of youth. Indeed, the City Library Association, as it assumes new responsibilities and multiplies its activities, is but expressing the dominant characteristic of that spirit, which swept an ever widening circle to the last.

WILLIAM ORR, JR.

Museum of Natural History.

Tuesday, May 3, 1898.

The Museum of Natural History : Statistics.

DONORS — '97-'98 :—

Anderson, H. S.
 Andrews, Luman.
 Barrows, Mrs. Charles.
 Butler, H. W.
 Chase, John H.
 Colton, J. D.
 High School Commission.
 Howe, Mrs. Josiah.
 Lewis, George S. Jr.
 Makepeace, Rev. F. B.
 Marsh, D. J., for Forest Park Commission.
 Meekins, Packard & Wheat.
 Montague, Gilbert H.
 Morris, Robert O.
 Orr, William, Jr.
 Parke, Hervey C.
 Phelon, Capt. Henry A.
 Raymond, Mrs. C. A.
 Rumrill, James A.
 Smith, Mrs. Mary F., for Gracia Smith Woffenden.
 Smith, Mrs. Mary L., for George Freeman Smith.
 Stebbins, John B., for Mrs. Charles Stearns.
 Tobey, Frank G.
 University Extension Society.
 Voight, B. G.
 West, John.

SUMMARY OF ACCESSIONS, '97-'98.

Geology,	26
Lithology,	148
Mineralogy,	43
Botany,	52

Zoölogy.

Bird Groups.	
(13) Bobolinks.	
(14) Quail.	
(15) Prairie Hen, specimens.	6
General,	4
Anthropology,	1
Historical Relics,	8
Special Collections.	
Luman Andrews:—	
Fossils,	1,034
Minerals,	1,188
Indian Relics,	503
Miscellaneous,	15
Total,	<hr/> 3,028

LIST OF SPECIMENS IN THE MUSEUM OF NATURAL HISTORY.

GEOLOGY.

Historical,	397
Phenomenal,	34
Relief Maps,	4
Photographs and Folios,	22
	<hr/> 457

LITHOLOGY, 380

MINERALOGY.

Systematic,	563
Local,	71
Comparative,	82
	<hr/> 716

BOTANY.

Mary Ann Lewis Collection of Woods,	258
George S. Lewis, Jr. Collections.	
1. Indian Corn,	191
2. Vegetable Fibers,	190
3. Palm,	63
Miscellaneous Collection,	161
	<hr/> 863

ZOOLOGY.

(a) Invertebrates.

Porifera,	34
Coelenterata,	66
Echinodermata,	100
Mollusca,	2,000

(b) Vertebrates.

Reptilia,	78
Amphibia,	12
Pisces,	170
Aves.	
1. Bird Skins,	404
2. Birds' Eggs,	445
3. Birds,	738
Mammals,	69
Skeletons,	64

4,180
362

ARCHAEOLOGY,

HISTORICAL RELICS.

French and Indian War,	2
Revolutionary War,	15
Civil War,	55
Photographs,	128
Coins,	4
Miscellaneous,	14

218

SPECIAL COLLECTIONS.

Dexter Smith Collection of Arms,	76
Lombard Relics,	32
Scandinavian Antiquities,	17
Russian Curios,	54
Mexican Antiquities,	23
Luman Andrews Collection,	2,725
Building Stones,	32

2,959

MISCELLANEOUS COLLECTIONS.

Curios,	212
Illustrative Collection,	13

225

SUMMARY.

Geology,	457
Lithology,	380
Mineralogy,	716
Botany,	863
Zoölogy,	4,180
Archæology,	362
History,	218
Special Collections,	2,959
Miscellaneous,	225

10,360

SCHOOL COLLECTIONS.

From the duplicate geological, mineralogical, and lithological material in the museum, collections have been prepared and loaned to various schools in and out of the city.

LIST OF MINERALS IN COLLECTION NO. 1.

Sulphur,	Barite.
Graphite.	Rock Crystal.
Native Silver.	Smoky Quartz.
Cinnabar.	Ferruginous Quartz.
Native Copper.	Chalcedony.
Chalcopyrite.	Agates.
Malachite.	Flint.
Malachite and Azurite.	Jasper.
Galena.	Pseudomorphous Quartz.
Sphalerite.	Silicified Wood.
Zincite.	Hornblende.
Iron Pyrites.	Bladed Tremolite.
Specular Iron.	Asbestos.
Magnetite.	Beryl.
Limonite.	Garnet.
Siderite.	Tourmaline.
Emery.	Foliated Talc.
Lazulite.	Serpentine.
Brucite.	Margarite.
Gypsum.	Amber.
Selenite.	Cannel Coal.
Alabaster.	Peat.
Calcite.	Conglomerate.

Satin Spar.	Clay-shale.
Argentine.	Quartzite.
Calcareous tufa.	Tyringham Gneiss.
Stalactite.	Pegmatite.
Stalagmite.	Syenite.
Aragonite.	Mica-slate.
Dog-tooth Spar.	Fossiliferous Rock.
Number of collections,	16
Average number of specimens in each,	40
Total number of specimens,	657

Schools supplied: Tapley, Elm, Barrows, Central, Carew, Buckingham, Worthington, Belmont, Brightwood, Strickland, School Street, Hooker, South Main, Indian Orchard, Armory Street, and East Longmeadow High.

Gifts to the Museum of Natural History.

MAY, 1897—MAY, 1898.

DEPARTMENT OF GEOLOGY.

- Prof. W. H. Hobbs. Geological photograph.
 High School. Geological map.
 Rev. F. B. Makepeace. Chazy limestone.
 John H. Chase. 10 specimens of tufa, sandstone, and trap.
 Gilbert H. Montague. 12 specimens of tufa, sandstone, and trap.
 B. G. Voight. Fossil fish.

DEPARTMENT OF LITHOLOGY.

- H. W. Butler. Series of 22 specimens from Lane's quarry.
 William Orr, Jr. 6 specimens of local rocks.
 George S. Lewis, Jr. 88 varieties of soil.

DEPARTMENT OF MINERALS.

- H. W. Butler. Datolite.
 Henry Webb. Diaspore and tourmaline.
 J. D. Colton. 34 specimens of copper, iron, etc.
 Hervey C. Parke. 4 specimens of copper.
 H. S. Anderson. Carborundum.
 Mrs. C. A. Raymond. Talc.

DEPARTMENT OF BOTANY.

- Arthur E. Webber. Gum copal.
Meekins, Packard & Wheat. 17 specimens of native and foreign woods.
George S. Lewis, Jr. 3 specimens of Indian corn.
3 specimens of corn-pith products.
12 specimens of China grass and products.
16 specimens of woods.

DEPARTMENT OF MAMMALS.

- Forest Park Collection. Japanese Deer.
Marmoset.
Monkey.

DEPARTMENT OF BIRDS.

- Robert O. Morris. Pigeon Hawk.
Gurdon Bill. 3 bird groups (6 specimens).

DEPARTMENT OF ANTHROPOLOGY.

- John West. Indian Pottery.

DEPARTMENT OF HISTORICAL RELICS.

- W. A. Richmond. Piece of Frigate Constitution.
Capt. Henry A. Phelon. Pottery made in West Springfield.
Mrs. Charles Barrows. Pottery made in West Springfield.
John B. Stebbins for Mrs. Charles Stearns. Sundial, and desk made of wood from the "Old Fort."
Mrs. Josiah Howe. 3 Colonial relics.

MISCELLANEOUS.

- Frank G. Tobey. 13 specimens, to illustrate the process of hat making.
James A. Rumrill. Picture of the "Old Curiosity Shop," and a twig from the "Yew Tree" in the old cemetery at Stoke Pogis, England.
University Extension Society. Electric lantern and screen.

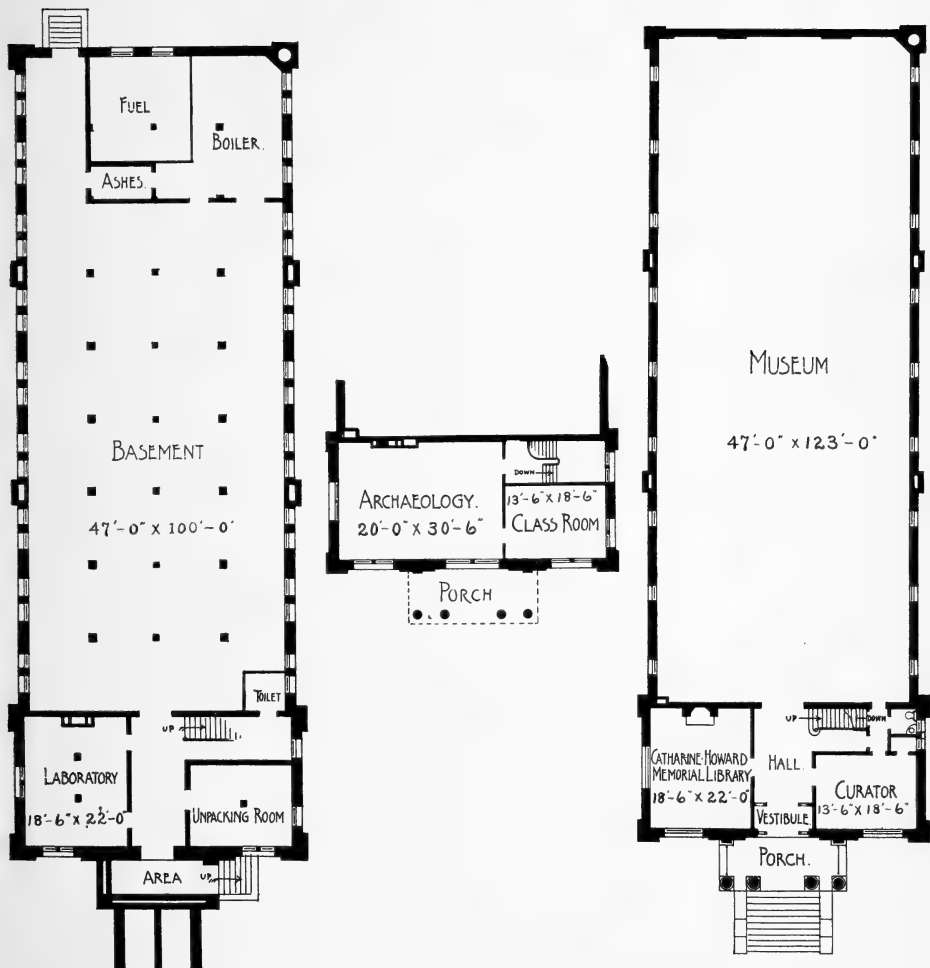
SPECIAL COLLECTIONS.

Luman Andrews. 1,034 Fossils.
1,188 Minerals.
503 Indian Relics.

High School Commission. 32 specimens of building stones.

Mrs. Mary F. Smith for Gracia Smith Woffenden. Miscellaneous
Collection.

Mrs. Mary L. Smith for George Freeman Smith. Miscellaneous
Collection.



FLOOR PLANS OF SCIENCE BUILDING.

SPRINGFIELD
PRINTING AND BINDING
COMPANY.



SPRINGFIELD
PRINTING AND BINDING
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REPORT OF THE MUSEUM
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ASSOCIATION FOR THE YEAR ENDING
MAY FIFTH, NINETEEN HUNDRED AND THREE

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LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

The Science Department.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year, 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open every day in the year, 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20.

Curator of the Museum of Natural History.

WILLIAM ORR.

Assistant Curator.

GRACE L. PETTIS.

Museum of Natural History.

Report of the Curator.

To the Directors and Members of the City Library Association :

The ninth annual report of the Museum of Natural History is hereby respectfully submitted.

In any estimate of the success of such an institution as the museum, first place must be given to the active, definite influences which it exerts on popular intelligence and interest. Only as building and collections are used as a means of educating young and old in the truth that is found in nature can they be said to exercise their highest and best function. The increase in range, number, and efficiency of the various activities of the museum is a notable and encouraging feature of the year's work. First in order your attention is called to the service rendered by the scientific societies of the city in coöperation with the museum.

Scientific Societies.

The Springfield Botanical Society holds meetings monthly through the winter and weekly for the rest of the year. From May to October of last year the society made a study of trees. Papers were read by individual members and these served as a basis for discussion. The scheme for the coming season includes topics in general botany and plant physiology. Field meetings are held as opportunity offers. The sessions of the society are held in the Science building and are open to the public.

A class in botany meets one evening each week in the museum for the informal study of plant forms. While the attendance on this class is small, it has been of value in stimulating interest.

The Zoölogical Club has been active and progressive. An interesting series of meetings has been conducted under its auspices. Topics suitable to the season are presented by local students. Recently the club has adopted the plan of holding its sessions in the museum room with the result of a greatly increased attendance. Chance visitors are attracted by the meetings and become part of the audience. The following report of the work of this organization was prepared by Mr. F. F. Smith of Ludlow, the secretary of the club.

“The Zoölogical Club has held fifteen meetings during the year, with

an average attendance of eighteen. During the first part of the year the club met in one of the lecture rooms of the Art Museum, but of late the meetings have been held in the Museum of Natural History, where the collections could be used as a means of illustration. As in the past, the club has listened to frequent reviews of the more important literature of the subject, and has thus kept in touch with the current research work. The card catalogue list of the animals of Springfield and vicinity represents another line of activity of some importance, and additions to it are being made constantly. The club feels that it has a certain mission of instruction to perform, and so plans to give a series of talks through the spring months on some of the groups of animals where such work of instruction is perhaps most needed and most likely to be appreciated. These talks will to a certain extent take the place of regular meetings, and will be held at the usual times for meetings, 4.30 p. m. on the first and third Wednesday of every month except July, August, and September."

The Geological Club has continued its studies of local formations with occasional talks on general geological topics. For this year the topics relate to the Silurian era in western Massachusetts. Occasional field excursions are taken to interesting localities.

Class Work and Lectures.

A class in entomology was conducted by Dr. George Dimmock for a course of twelve lessons, beginning January 10, 1903. The meetings were held on Saturday mornings, with an average attendance of fourteen. Dr. Dimmock has prepared a systematic outline of work for the study of the anatomy, physiology, and psychology of insects. In the outline careful directions are given for reading and research.

The botany class has held weekly meetings under the direction of Dr. Walter H. Chapin. Study has been made of mosses and ferns.

There have been three evening openings as follows:

1902.

May 9. Talk on Vegetable Galls by Miss Fannie Stebbins.

September 12. Exhibition of Ceramic Club and the Bill Collection of animal groups.

1903.

January 28. Talk on Indian Corn by Mr. George S. Lewis, Jr.

A lecture on "Bird Studies with a Camera," was given by Mr. Frank M. Chapman of the American Museum of Natural History, New York, under the auspices of the museum, in High School Hall, March 7, 1903. There was an attendance of 261, and so much interest was aroused that

plans are now being made for a course of six lectures on bird life by Mr. Chapman, next fall.

As a stimulus and guide to bird study, the museum has compiled the results of observation on arrivals, in a pamphlet giving the date of arrival of birds within ten miles of Springfield, during the spring of 1901 and 1902. This booklet is sold at the nominal price of five cents and has been much in demand. It is proposed to issue an edition each year with information brought up to date, and with notes to guide observers in this fascinating phase of nature study.

Collections made in Competition for Prizes.

Mention was made in the last report of the results of the contest for prizes in mineralogy.

Last year collections of beetles and their food plants made by pupils below High School grade in any Springfield school were the subject of competition. There were ten contestants, and the total number of specimens collected numbered 1806, of which but few were duplicates. The first prize of \$10 was awarded to Faunce Dumbleton of Euclid Avenue, whose collection numbered 202 species and 28 food plants. The second prize of \$5 went to Josephine de Montigny of Berkshire Street, who secured 196 species and 18 food plants. Special mention of merit was made of the collections of Elcinet Woollard of Victoria Street, Charles G. Pease of Berkshire Street, and Alfred H. Hastings of Bowles Street. The judges were Robert O. Morris, Miss Fannie Stebbins, Frederick Knab, and Dr. George Dimmock. During the progress of the contest, talks were given by Dr. Dimmock on methods of collecting, and two field trips were taken. This phase of museum work has attracted attention and favorable comment in scientific papers.

For the coming year, the Aston prizes in Natural History are offered. The first prize of six dollars is open to pupils of grades five to nine and will be awarded for the best life history of one kind of insect illustrated by specimen.

The second prize of four dollars is open to pupils of grades three to seven and will be given for the most complete collection of insects found feeding upon any one kind of tree or plant.

In connection with this contest a talk to children on "How to collect insects that feed upon plants" was given by Dr. Dimmock April 10, with an attendance of fifty-six. On Saturday, April 11, an excursion was made, on which twenty went.

Special Exhibits.

No feature of the work has been of more value in attracting attention and stimulating study than the displays of specimens in Botany and Zoölogy that have been maintained through the entire year. Each month the migrant birds that appear at that season are put out on a table and are labeled with common and scientific name. A full list of the specimens listed during the early months of 1902 may be found in the annual report for that year, on pp. 13-15.

Observations on the arrival of birds in and about Springfield during the spring months are noted on the bulletin board and comparisons made with previous years. Up to May 1 of the present year 40 species were observed as compared with 41 in 1902 and 26 in 1901.

Last year Dr. Dimmock began to give illustrations of insects with living specimens. The scope and nature of this new feature of the work is given in the following account prepared by Dr. Dimmock at my request:

“Illustrating the habits of our insects by living specimens was begun early in 1902, by an exhibition of 22 kinds of galls caused by different insects on plants. Later in the season, as caterpillars of various kinds became more abundant, different stages of 9 species of butterflies, 6 of sphinx moths, 24 of bombycid moths, and 10 species of moths belonging to other families were shown. Some of the caterpillars were gaudily colored, others were mimics of twigs in form and color. A fine lot of about 40 cecropia moths, the largest New England species, was reared from eggs to cocoons, and the latter kept over winter in order to show the emerging moths this season. Among other large moths reared, was the royal moth, which is rare in Massachusetts. Of beetles 20 kinds were shown alive, and earlier stages were shown of 10 kinds, a rather large exhibit of earlier stages for this order of insects. Twelve other miscellaneous insects were on the tables, making over 100 species of our native insects shown alive, in one or more stages, during the season. The interest taken in these living insects, especially by school children, well repaid the labor of caring for this miniature menagerie.

“A table was occupied for a time in raising silkworms, and, besides attracting much attention, furnished specimens to enrich our collection of useful insects and their products.

“This spring a table has been already devoted to early aquatic insects, and also to some of our salamanders and tadpoles, but, as the work forms a part of the program for the coming summer, statistics will be reserved for the next report.”

The exhibit of flowers was continued through the summer months and has grown in value. In 1902, a total of 387 species were thus dis-

played. For the list of exhibits from February 15 to May 13, 1902, you are referred to the eighth annual report, pages 16, 17. For the rest of the year, see appendix to this report.

This year up to May 1, 84 species were shown. During the winter months there was an exhibition of mosses and lichens, and during the fall one of mushrooms.

On May 28, 1902, there was commenced an exhibition of vegetable galls.

The Ceramic Club used the rooms of the museum for a display of specimens of china painting. This lasted for two days, and was well attended.

Attendance of Classes from Schools.

The growth in this use of the collection is also gratifying, and every effort should be made to extend the custom among the schools of the city. Figures for class visits are as follows :

Total number of classes,.....	75
Classes from city,.....	53
Classes outside of city,.....	22
Total number of pupils in classes,.....	1,068

Figures for General Attendance.

Average daily attendance,.....	.83
Average Sunday attendance,.....	.98
Average week day attendance,.....	.76
Largest daily attendance, May 26,.....	.397
Smallest daily attendance, December 25,.....	.2
Estimated total yearly attendance,.....	30,295

Accessions.

Geology.

In geology the additions to the collections have consisted in the main of rocks and minerals. One large and unique specimen was added in the shape of a fine basaltic column from the Giant Causeway, County Antrim, Ireland. This column weighs five hundred pounds and shows in great perfection the prismatic shape and jointing of the pillars of this remarkable natural formation. It is of value in our museum, because of the similarity of the basaltic columns of the Causeway with those of the igneous rock of Mount Tom. Geoffrey Benson of Ballymoney, County Antrim, Ireland, has given a series of minerals and fossils from Bundoran, in County Donegal.

Botany.

George S. Lewis, Jr., continues to foster the growth of this department by direct gift and by care and oversight. He has added to this collection specimens of Indian corn, Mexican mahogany, Brazilian rosewood, and an English ivy from the Kew Gardens, London.

Mrs. Mary C. Sampson of Los Angeles, Cal., has given a herbarium of North American ferns and flora of the Eastern United States. From Miss Josephine E. Strong the museum has received a shawl made from pineapple fiber in Fayal, Azores Islands. Jute in various stages of manufacture has been received from the Chelsea Jute Mills.

Zoology.

Dr. Dimmock has been greatly aided in his work in entomology by the generous interest shown by friends of the museum, and by their assistance in procuring specimens of insects. Recognition is hereby made of the following gifts, whereby the study of living things in the museum has been fostered and made attractive :

(Where not otherwise indicated all localities are Springfield.)

Miss Olive I. Bailey, 359 Central Street.

A curious bug (*Emmesa Longipes*, Deg.).

Large parasitic fly (*Bombyliomyia abrupta*, Wied.).

Larvæ of two kinds of moths (*Datana ministra*, Drury, and *Philampelus achemon*, Drury).

A curious ichneumon (*Pelecinus polyturator*, Drury).

Mrs. P. E. Brown, 25 Montrose Street.

Sphinx larva (*Ampelophaga myron*, Cram.), with parasitic ichneumons (*Apanteles congregatus*, Say) emerging from it.

Miss Alma Burgess, 36 Central Street.

Large longicorn beetle (*Saperda calcarata*, Say).

Larvæ of moth (*Callosamia promethea*, Drury).

Miss Mabel Burroughs, Springfield.

Rare beetle (*Calosoma willcoxi*, Lec.).

Frederick Knab, Chicopee, Mass.

Larvæ of butterflies (*Euphydryas phaeton*, Drury, from Mount Tom ;

Thanaos juvenalis, Fab., from Wilbraham ; *Anosia plexippus*, L., and *Epargyteus tityrus*, Fab.).

Palm-weevil (*Rhynchophorus palmarum*, L.), from Santarem, Brazil.

J. O. Martin, Wilbraham, Mass.

Larvæ of royal moth (*Citheronia regalis*, Fab.).

J. P. Ostiguy, 78 Union Street.

Large spider (*Argiope riparia*, Hentz).

Miss A. L. Sanderson.

Rare beetle (*Cychrus viduus*, Dej.), from Colerain, Mass.

Charles G. Whiting, 284 Pine Street.

Egg-cocoon of spider (*Argiope riparia*, Hentz), containing hymenopterous egg-parasites.

Dr. W. H. Chapin, 675 State Street.

Mosquito larvæ (*Culex* sp.).

W. F. Emerson, Longmeadow, Mass.

Butterfly (*Papilio philenor*, L.), and its larva.

William F. Gale, City Forester.

Wood bored by different beetles.

Pine scale insects (*Chionaspis pinifoliae*, Fitch), and elm scale (*Gossyparia ulmi*, Geoff.).

J. H. Hendrick, 632 State Street.

Galls of an undetermined insect that deforms the berries of swamp huckleberry (*Vaccinium corymbosum*, L.).

W. E. Holmes, Putnam, Conn.

Specimens of raw silk, and of silk in various stages of manufacture.

Mr. Robert O. Morris has given a number of birds; among these a three-toed woodpecker in winter plumage from Bangor, Maine, a black-bellied plover from the Massachusetts coast, and a semi-palmated sand-piper from Longmeadow.

Record is also made of other general gifts in zoölogy in the appendix of this report.

Animal Groups.

In this department the museum has received three notable additions during the past year.

Mr. Gurdon Bill has given a muskrat group, *Fiber zibethicus*, a description of which was given in the last annual report. It has attracted much attention, and is highly instructive as to the habits and haunts of the animal represented.

Two very large cases and important groups have been added through the generosity of Mr. Nathan D. Bill, the vice-president of the association. One of these represents a group of American elk, *Wapiti*, *Cervis Canadensis* (Eixleben.); the other a family of the bison, *bison bison* (Linn.).

The animals as mounted are unusually fine examples of the skill of the taxidermist, and the environment has been worked out with the greatest care in the minutest details. The large cases, each sixteen feet by sixteen feet on the floor, and twelve feet high, are placed at the north end of the main hall. They are made in a most thorough manner and display the groups to excellent advantage. In the elk group three animals are represented, the male, female, and young. The male is from the Forest Park menagerie, the cow from the Corbin herd of the Blue Mountain forest association of New Hampshire, and the calf comes from Manitoba. The group is shown among the natural surroundings of the animals. A dead and fallen tree with the rotting stump, both overgrown with mosses and lichens, an artificial rock, natural grass with the color preserved, the quaking aspen and barberry bushes are all shown. The artificial leaves and the grasses were among the last work of Mrs. E. S. Mogridge, who did so much to perfect the bird groups given by Mr. Gurdon Bill to the museum, some years ago.

In the bison (buffalo) group the big bull is from the herd of Joseph Allard of Missoula, Montana; the cow and calf are from the Corbin herd as above mentioned. The animals are represented on the prairie, the sod covered with a thick carpet of dry buffalo grass from Kansas, and scattered over the surface are sagebrush, prickly pear, a buffalo skull with a rattlesnake near it. There is an old buffalo trail with the marks of the animals' hoofs in the loose dust. Mr. John Rowley of the American Museum of Natural History of New York city superintended the mounting and arrangement of the group.

A finely articulated skeleton of the elk has also been given the museum by Mr. Nathan D. Bill.

Archæology.

The collections in this department are now thoroughly classified and labeled. Some interesting investigations have been made by Prof. A. H. Dakin under the auspices of the museum upon an ancient Indian quarry site in Wilbraham. This quarry, situated in the eastern part of Wilbraham, was opened by the Indians in order to obtain the soapstone which occurs there for manufacture into their various domestic pots and bowls. The lot on which the quarry is situated is a sterile pasture, but, being unfit for cultivation, has remained undisturbed since the departure of the aborigines. The limited excavations already made have revealed a large number of quarry implements both broken and entire, and many half made bowls. The implements with which the work was done are generally made of trap rock, evidently from the Holyoke or Mount Tom range. The excavation

of an undisturbed steatite quarry in which trap implements were used cannot fail to add much to our information regarding this industry — so far as is known such an excavation has not yet been made.

The work will be continued during the present summer months by Professor Dakin, and the museum will be enriched by a large addition of implements and photographs.

The museum received from Dr. J. Searle Hurlbut, shortly before his death, eleven photographs; among these were two of Indian girls and eight of cacti. Mrs. J. Searle Hurlbut has given for her husband a collection of Mexican curios, woods, shells, stamps, and photographs.

A collection of Indian implements, including a copper spear point or knife from the cemetery at Thompsonville, Conn., has been received from John H. Smith of Haydenville.

The Work of the Museum.

Besides the routine attention required by care of specimens and building and the manifold sides of museum activity, some progress has been made in classification. It is apparent that this work must henceforth be largely done by persons secured especially for this service, as the time and strength of the officers is now taken up with the active, educational development of the museum, such as direction of lectures, special exhibits, and class work.

Dr. George Dimmock has prepared two very valuable outlines, one for the class work in entomology, and one of instructions and suggestions for the competitors for the First Aston Prize.

The lesson outline contains a complete synopsis for the study of insect life, with a carefully compiled list of reference reading. Such topics as nutrition and nutritory systems, nervous system and sense organs, metamorphoses of insects and social life instincts are presented with great thoroughness.

The suggestions for the Aston Prize competitors are adapted to children, and give hints and directions as to the best way in which to study insects in the field, to record observations and make collections. It is to be hoped that the City Library Association may be able at some time to publish monographs on special topics of scientific interest. Much material is now at hand for such publications.

Additional Equipment.

For the past year no cases have been added, as it did not seem wise to incur such expense. For the coming year there is need of an equipment of cases in the smaller class room to provide for the exhibition of historical

relics and curios displaced by the archaeological collection. Tables are also needed to display the special exhibits that are increasing in number and extent.

Children's Rambles and Excursions.

It will be noticed that the museum is more and more seeking to reach and interest children in various phases of nature study. Such a purpose is fully justified by the results already attained. Plans are now under consideration for the organization of a scheme of rambles and excursions. Groups of children are to be taken into the surrounding country under sympathetic and competent supervision. For younger children such trips should be of only a few hours' length, and the study should be of a very general nature. With increase of age the work may be made more extended and specialized.

Anyone who has observed the genuine delight that children take in nature when their attention is properly directed, will see how great possibilities there are in such rambles. The difficulty at present is to find persons who will undertake such duties. Certainly the service is a worthy one and deserving of support.

A Word of Tribute.

During the past year the museum has suffered loss in the death of two of its friends: Mrs. E. S. Mogridge, who did such faithful and admirable work on the various bird and animal groups, and Dr. J. Searle Hurlbut, who, by gifts and personal interest, largely aided the department of botany. It is by reason of volunteer assistance and generous support from many friends that the museum has been enabled to reach its present level of efficiency and maintain its excellence. For all such aid, we would express our sincere appreciation on behalf of the association.

List of Classes with Teachers That Visited the Museum During the Year Ending May, 1903.

1902.	School and Teacher.	No. of Pupils.
May 5.	"The Elms." (Private school for girls).....	9
9.	Ludlow, Mabel Ray.....	9
12.	"The Elms." (Private school for girls).....	9
13.	Barrows Grammar, Elizabeth Higgins.....	15
13.	Carew Street Grammar, Alice Craig.....	10
14.	Central Street Primary and Grammar, Mary Curtis.....	6
15.	Ludlow, Mabel Ray.....	11
17.	Tapley Primary and Grammar, Addie McKechnie.....	15
20.	West Springfield, Mass., Inez Sweet.....	6
23.	Central Street Primary and Grammar, Mary Curtis.....	5
23.	West Springfield, Mass., Inez Sweet.....	6
23.	Tapley Primary and Grammar, Addie McKechnie.....	11
24.	Wilbraham, Mass., Ida Blair.....	6
June 4.	High School, Bertha Ballantyne.....	46
4.	William Street Primary, Alice Makepeace.....	30
4.	Enfield, Mass., Grammar.....	5
6.	Elm Street Grammar, Maud Cole.....	5
7.	Enfield, Mass., Grammar.....	6
8.	High School, Bertha Ballantyne.....	42
12.	Ludlow Union School, Grace Hawkins.....	18
16.	Forest Park Primary and Grammar, Helena Duckworth.....	13
Dec. 13.	South Hadley Boys' School.....	10
Jan.13,1903.	Granby, Conn., Academic School.....	15
29.	French-American College, Prof. Gustave Michaud.....	7
Feb. 7.	Suffield, Conn., Sunday School Class.....	6
27.	The MacDuffie. (Private school for girls).	10
Mar. 6.	Elm Street Grammar, Maud Cole.....	18
7.	Holyoke Y. M. C. A.....	20
12.	Central Street Primary and Grammar, Mrs. Hattie Schoepf.....	11
13.	Carew Street Grammar, Alice Craig.....	6
13.	Elm Street Grammar, Maud Cole.....	5
16.	Elm Street Grammar, Ruth Doolittle.....	16
16.	Chicopee, Mass., Robinson School, Jennie Livermore.....	12
19.	Elm Street Grammar, Cecile Dimond.....	10
20.	Kindergarten (Private), Florence Littlefield.....	6
21.	Pynchon Primary, Mary Bugbee.....	14
23.	"The Elms." (Private school for girls).....	8
25.	Kindergarten (Private), Florence Littlefield.....	7
25.	Barrows Grammar, Elizabeth Higgins.....	18
25.	Barrows Grammar, Mary Pomeroy.....	7
25.	Cooking School, Ellen D. Woodward.....	21
25.	Chicopee, Mass., Robinson School, M. Pansy Smith.....	10
27.	Pynchon Primary, Georgietta Hooker.....	29
27.	Barrows Grammar, Mary Pomeroy.....	6
April 3.	Chicopee, Mass., Robinson School, Jennie Livermore.....	12
3.	Tapley Primary and Grammar, Sarah Bromley.....	16

April 3.	City School (Name of teacher not taken).....	20
6.	South Hadley Falls, Edith Feustel.....	13
10.	William Street Primary, Mabel Clary.....	21
10.	Buckingham Grammar, Arthur P. Irving.....	40
17.	William Street Primary, Chloe St. John.....	13
17.	William Street Primary, Ruth Doolittle.....	22
20.	Junior Endeavor of Palmer, Mass.....	10
21.	High School, Bertha Ballantyne.....	49
21.	Elm Street Grammar, Elizabeth Steele.....	11
21.	Central Street Grammar, Mrs. Hattie Schoepf.....	8
21.	West Springfield, Mass., Inez Sweet.....	6
21.	Armory Street, Minnie Gutberlet.....	22
22.	High School, Bertha Ballantyne.....	48
22.	Chicopee, Mass., Robinson School, M. P. McClintock.....	8
24.	West Springfield, Mass., Meadow Street School, E. E. Donkersley.....	6
25.	Chicopee, Mass., Spruce Street School, Clara Bostwick.....	13
27.	West Springfield, Mass., Meadow Street School, E. E. Donkersley.....	10
	Twelve Entomology Classes.....	165
	Total number of pupils in classes.....	1,068
	Number of classes with teachers.....	75
	Classes from the city.....	53
	Classes from out of the city.....	22

Special Exhibits—Botany.

Flowers Exhibited After May 13, 1902.

The species exhibited from February 15 to May 13, 1902, are listed in the last Annual Report.

- May 13. *Actaea alba*, Bigel. White Baneberry.
Dentaria diphylla, L.
Barbarea vulgaris, R. Br. Common Winter Cress, Yellow Rocket.
Viola pubescens, Ait. Downy Yellow Violet.
Geranium maculatum, L. Wild Cranesbill.
Lupinus perennis, L. Wild Lupine.
Sedum Ternatum, Michx. Stone-crop. Orpine.
Krigia Virginica, Willd. Dwarf Dandelion.
Trientalis Americana, Pursh. Star Flower.
Trillium cernuum, L. Nodding Trillium.
 " *erythrocarpum*, Michx. Painted Trillium.
14. *Cornus florida*, L. Flowering Dogwood.
Rhododendron nudiflorum, Torr. Purple Azalea.
Cypripedium pubescens, Willd. Yellow Lady's Slipper.
Polygonatum biflorum, Ell. Smaller Solomon's Seal.
15. *Viola canina*, L. Dog-Violet.
Geum Virginianum, L.
Pinus rigida, Mull. Pitch Pine.
Cypripedium acaule, Ait. Stemless Lady's Slipper.
Uvularia perfoliata. Bellwort.
17. *Comandra umbellata*, Nutt.
Clintonia borealis, Raf.
Corydalis glauca, Pursh. Pale Corydalis.
19. *Drosera rotundifolia*, L. Round-leaved Sundew.
Cornus Canadensis, L. Dwarf Cornel, Bunch-berry.
Rhododendron calendulaceum, Torr. Flame Azalea.
20. *Aphyllon uniflorum*, Gray. Naked Broom-rape.
Pogonia verticillata, Nutt.
21. *Ranunculus recurvatus*, Poir. Hooked Crowfoot.
Nasturtium Armoracia, Fries. Horseradish.
22. *Senecio aureus*, L. Golden Ragwort, Squaw-weed.
23. *Medeola Virginiana*, L. Indian Cucumber-root.
Buda rubra, Dumont. Sand-Spurrey.
24. *Sarracenia purpurea*, L. Pitcher-Plant.
Ilex verticillata, Gray. Winterberry.
Potentilla argentea, L. Silvery Cinque-foil.
Scleranthus annuus, L.
Polygonatum giganteum, Dietrich. Great Solomon's Seal.
Smilacina trifolia, Desf.
Calla palustris, L. Water Arum.
25. *Trifolium agrarium*, L. Yellow Hop Clover.
Diervilla trifida, Moench. Bush Honeysuckle.
Sisyrinchium angustifolium, Mill. Blue-eyed Grass.
Smilacina racemosa, Desf. False Spikenard, False Solomon's Seal.

- May 26. *Vaccinium stamineum*, L. Deerberry, Squaw Huckleberry.
Kalmia latifolia, L. Mountain Laurel, Calico-bush.
Iris versicolor, L. Larger Blue Flag.
Carex stricta, Lam.
28. *Geranium Robertianum*, L. Herb Robert.
Kalmia angustifolia, L. Sheep Laurel.
29. *Daucus Carota*, L. Wild Carrot, Queen Anne's Lace.
Osmorrhiza brevistylis, DC. Sweet Cicely.
Cornus alternifolia, L. Cornel.
Chrysanthemum Leucanthemum. Ox-eye or White Daisy, White-weed.
Linaria Canadensis, Dumont. Toad-Flax.
Pentstemon pubescens, Solander. Beard tongue.
Populus monilifera, Ait. Cotton-wood, Necklace Poplar.
Taxus Canadensis, Willd. American Yew, Ground Hemlock.
30. *Trifolium hybridum*.
Bromus tectorum, L.
Viburnum acerifolium, L. Maple-leaved Viburnum.
Vicia Cracca, L. Vetch.
Trifolium hybridum, L. Alsike Clover. Nat. from Europe.
- June 1. *Acer spicatum*, Lam. Mountain Maple.
Erigeron annuus, Pers. Daisy Fleabane, Sweet Scabious.
Veronica Americana, Schweinitz. American Brooklime.
3. *Lychnis vespertina*, Sibth. Evening Lychnis.
Potentilla arguta, Pursh.
Tragopogon pratensis, L. Goat's-beard.
Hieracium venosum, L. Rattlesnake-weed.
Andromeda polifolia, L.
Glaux maritima, L. Sea-Milkwort.
Myosotis palustris, Withering. Forget-me-not.
Veronica Virginiana, L. Thimble-weed.
Habenaria Hookeri, Torr.
Smilax herbacea, L. Carrion-Flower.
5. *Thalictrum polygamum*, Muhl. Tall Meadow-Rue.
Helianthemum Canadense, Michx. Rock-rose.
Malva rotundifolia, L. Common Mallow.
Scrophularia nodosa, L. var. *Marilandica*. Figwort.
6. *Celastrus scandens*, L. Bitter-sweet.
Rumex acetosella, L. Field or Sheep Sorrel.
Dactylis glomerata, L. Orchard Grass.
8. *Ranunculus sceleratus*, L.
Melilotus officinalis, Willd. Yellow Melilot.
Lysimachia quadrifolia, L. Loosestrife.
Pentstemon grandiflorus, Nutt.
Rumex crispus, L. Curled Dock.
Arethusa bulbosa, L.
Habenaria pycodes, Gray. Small Purple Fringed-Orchis.
10. *Nuphar advena*, Ait. Spatter-Dock, Yellow Pond-Lily.
Robinia viscosa, Vent. Clammy Locust.
Rubus villosus, Ait. Common or High Blackberry.
Oenothera pumila, L. Evening Primrose.
Sanicula Marylandica, L. Black Snakeroot.
Viburnum cassinoides, L. Withe-rod.
Hieracium aurantiacum, L. European Hawkweed, Devil's Paint Brush.
13. *Oxalis corniculata*, L. var. *stricta*, Sav. Upright Yellow Wood-Sorrel.
Drosera intermedia, var. *Americana*. Long-leaved Sundew.
Viburnum dentatum, L. Arrow-wood.
Galinsoga parviflora, Cav.

- June 13. *Hieracium scavrum*, Michx. Hawkweed.
Ledum latifolium, Ait. Labrador Tea.
Menyanthes trifoliata, L. Buckbean.
Habenaria dilatata, Gray.
Eriophorum polystachyon. Cotton-Grass.
16. *Heracleum lanatum*, Michx.
Conium maculatum, L. Poison Hemlock.
Cornus paniculata, L'Her. Panicked Cornel.
Coreopsis lanceolata, L.
Vaccinium Oxycoccus, L. Small Cranberry.
Lysimachia vulgaris, L. European loosestrife.
Utricularia vulgaris, L. Greater Bladderwort.
Brunella vulgaris, L. Common Self-heal or Heal-all.
Lamium maculatum, L. Dead-Nettle.
Liparis liliifolia, Richard.
Pogonia ophioglossoides, Nutt.
Calopogon pulehellus, R. Br.
Cypripedium spectabile, Salisb. Showy Lady's Slipper, Williamstown, Mass.
Calamagrostis Nuttalliana, Steud.
Azolla Caroliniana, Willd.
17. *Gaylussacia resinosa*, Torr. & Gray. Black Huckleberry.
Thalictrum purpurascens, L. Purplish Meadow-Rue.
Menispermum Canadense, L. Moonseed.
Arenaria lateriflora (?), L. Sandwort.
Staphylea trifolia, L. American Bladder-nut.
Geum rivale, L. Water or Purple Avens.
Potentilla Norvegica, L.
Heuchera Americana, L. Common Alum-root.
Carum carui, L. Caraway.
Erigeron strigosus, Muhl. Daisy Fleabane.
Erigeron Philadelphicus, L. Common Fleabane.
Rudbeckia hirta, L. Cone-flower.
Rhododendron viscosum, Torr. Clammy Azalea.
Chimaphila umbellata, Nutt. Prince's Pine, Pipsissewa.
Monotropa uniflora, L. Indian Pipe.
Convolvulus spithameus, L. Bindweed.
Solanum Dulcamara, L. Nightshade.
Peltandra undulata, Rat. Arrow Arum.
Lemna minor, L. Duck's-meat.
Asclepias cornuti, Decaisne. Common Milkweed.
20. *Actæa spicata*, L. (var.) *rubra*. Red Baneberry.
Ceanothus Americanus, L. New Jersey Tea.
Rosa rubiginosa, L. Sweet brier.
Specularia perfoliata, A. DC. Venus's Looking-glass.
Pyrola secunda, L. One-sided Shin-leaf.
Linaria vulgaris, Mill. Butter and Eggs.
Myrica asplenifolia, Endl. Sweet Fern (Fruit).
Botrychium matricariæfolium, Braun.
21. *Nyssa sylvatica*, Marsh. Tupelo, Pepperidge.
22. *Hypericum perforatum*, L. St. John's-wort.
Rhus Typhina, L. Stag-horn Sumach.
Trifolium arvense, L. Rabbit-foot or Stone Clover.
Tephrosia Virginiana, Pers. Goat's Rue.
Coronilla varia, L. Coronilla, Axseed, Axwort.
Spiræa salicifolia, L. Meadow-sweet.
Sedum acre, L. Mossy Stone-crop.
Epilobium angustifolium, L. Fire-weed.

- June 22. *Oenothera biennis*, L. Common Evening Primrose.
Oenothera biennis, L. var. *grandifloras*, Lindl. Evening Primrose.
Aralia racemosa, L. Spikenard.
Sambucus Canadensis, L. Common Elder.
Apocynum androsæmifolium, L. Spreading Dogbane.
Asclepias incarnata, L. var. *pulchra*, Pers. Swamp Milkweed.
Asclepias obtusifolia, L. Michx.
Physalis pubescens, L. Ground Cherry.
Verbascum Blattaria, L. Moth Mullein.
Melampyrum Americanum, Michx. Cow-Wheat.
Calamintha Clinopodium, Benth. Basil.
Smilax rotundifolia, L. Common Greenbrier.
Typha latifolia, L. Common Cat-Tail.
24. *Picea nigra*, Link. Black Spruce.
Thuja occidentalis, L. Arbor Vita, White Cedar.
Juniperus Virginiana, L. Red Cedar.
26. *Lysimachia stricta*, Ait.
Larix Americana, Michx. American or Black Larch, Tamarack, Hackmatack.
Marchantia polymorpha, L. Liverwort Family.
27. *Stellaria longifolia*, Muhl. Long leaved Stitchwort.
Pinus Strobus, L. White Pine.
Pinus resinosa, Ait. Red Pine.
Picea alba, Link. White Spruce.
Tsuga Canadensis, Carr. Hemlock.
- July 1. *Silene nivea*, Otth. Campion.
Baptisia tinctoria, R. Br. Wild Indigo.
Circea Lutetiana, L. Enchanter's Nightshade.
Cryptotania Canadensis, DC. Honewort.
Eupatorium purpureum, L. Joe-Pye Weed, Trumpet Weed.
Cnicus arvensis, Hoffm. Canada Thistle.
Pyrola rotundifolia, L. Shin-leaf.
Lysimachia nummularia, L. Moneywort.
Asclepias phytolaccoides, Pursh. Poke Milkweed.
Solanum nigrum, L. Common Nightshade.
Leonurus Cardiaca, L. Common Motherwort.
Lilium Philadelphicum, L. Wood Lily.
3. *Lactuca Canadensis*, L. Wild Lettuce.
Asclepias purpurascens, L. Purple Milkweed.
Castanea sativa, Mill. var. *Americana*. Chestnut.
5. *Hydrocotyle Americana*, L. Water Pennywort.
Apocynum cannabinum, L. Indian Hemp.
Lycopodium annotinum, L.
Lycopodium obscurum, L. var. *dendroideum*, Michx.
Lycopodium complanatum, L. Ground Pine.
6. *Dianthus Armeria*, L. Deptford Pink.
Rubus odoratus, L. Purple Flowering-Raspberry.
Scutellaria lateriflora, L. Mad-dog Skullecup.
7. *Saponaria Vaccaria*, L.
Saponaria officinalis, L. Bouncing Bet.
Geranium Carolinianum, L. Carolina Geranium.
Melilotus alba, Lam. White Melilot.
Sericocarpus solidagineus, Nees. White-topped Aster.
Anthemis Cotula, DC. May-weed.
Andromeda ligustrina, Muhl. Privet Andromeda.
Asclepias tuberosa, L. Butterfly-weed.
Echium vulgare, L. Blue-weed.
Convolvulus sepium, L. Hedge Bindweed.

- July 8. *Adlumia cirrhosa*, Raf. Climbing Fumatory.
Houstonia purpurea, L. var. *ciliolata*, Gray. Fringed Houstonia (?).
11. *Sherardia arvensis*, L.
Pycnanthemum linifolium, Pursh. Mountain Mint.
Lilium superbum, L. Turk's Cap Lily.
14. *Lepidium Virginicum*. Wild Peppergrass.
Hypericum maculatum, Walt.
Desmodium Canadense, DC. Tick-trefoil.
Aralia hispida, Vent. Bristly Sarsaparilla.
Gaultheria procumbens, L. Creeping Wintergreen.
Chimaphila maculata, Pursh. Spotted Wintergreen.
Pyrola elliptica, Nutt. Shin-leaf.
Mimulus ringens, L. Monkey Flower.
Verbena hastata, L. Blue Vervain.
Stachys aspera, Michx. Hedge-Nettle.
Plantago Rugelii, Decaisne.
Plantago Patagonica, Jacq. var. *aristata*.
Phytolacca decandra, L. Common Poke or Scape Garget, Pigeon-Berry.
Polygonum lapathifolium, var. *incarnatum*, Watson.
Polygonum convolvulus, L. Black Bindweed.
Aletris farinosa, L.
Lilium Canadense, L. Wild Yellow Lily.
Panicum clandestinum, L.
Setaria viridis, Beauv. Foxtail, Pigeon-Grass.
Agrostis alba, L. var. *vulgaris*, Thurb. Red Top, Herd's-Grass.
Agrostis scabra, Willd. Hair-Grass.
Poa compressa, L. Wire-Grass, English Blue-Grass.
17. *Lonicera grata*, Ait. American Woodbine.
Pontederia cordata, L. Pickerel-weed.
Potamogeton natans, L.
Potamogeton heterophyllus, Schreb. var. *graminifolius*, Fries.
18. *Agrimonia Eupatoria*, L. Common Agrimony.
Rosa Carolina, L. Swamp Rose.
Cicuta maculata, L. Spotted cowbane.
Cicuta bulbifera, L.
Galium asprellum, Michx. Rough Bedstraw.
Mentha Canadensis, L. Wild Mint.
Monarda didyma, L. Oswego Tea, Bee Balm.
Goodyera pubescens, R. Br. Rattlesnake Plantain.
Sagittaria variabilis, Engelm.
22. *Spiræa tomentosa*, L. Hardhack, Steeple-Bush.
Cephalanthus occidentalis, L. Button-bush, Button-tree.
Eupatorium perfoliatum, L. Thoroughwort, Boneset.
24. *Solidago lanceolata*, L. Bushy or Fragrant Goldenrod.
Helianthus divaricatus, L. Rough or Wood Sunflower.
Vaccinium vascillans, Solander (Fruit).
Pycnanthemum muticum, Pers. Hairy Mountain Mint.
Scutellaria galericulata, L.
26. *Sabbatia chloroides*, Pursh. Large Marsh Pink (Plymouth, Mass.).
27. *Inula Helenium*, L. Elecampane.
Campanula aparinoides, Pursh. Marsh Bellflower.
Monarda fistulosa, L. var. *Mollis*. Wild Bergamot.
30. *Apios tuberosa*, Moench.
31. *Clematis Virginiana*, L. Common Virgin's Bower.
Anemone Virginiana, L. Thimble-weed.
Gerardia flava, L. Downy False Foxglove.
- Aug. 1. *Opuntia vulgaris*, Mill. Prickly Pear.

- Aug. 1. *Spiranthes latifolia*, Torr.
Habenoria lacera, R. Br. Ragged Fringed Orchis. (New Salem.)
 2. *Monotropa Hypopitys*, L. False Beech-drops.
 5. *Crotalaria sagittalis*, L. Rattle-box.
Epilobium coloratum, Muhl.
Lycopus sinuatus, Ell.
Polygonum sagittatum, L. Arrow-leaved Tear-thumb.
Laportea Canadensis, Gaudichaud.
Corallorhiza odororhiza, Nutt. Otis.
 6. *Conopholis Americana*, Wallroth. Otis.
 7. *Liatris squarrosa*, Willd. Blazing-Star.
Anaphalis margaritacea, Benth. and Hook. Pearly Everlasting.
 11. *Lobelia cardinalis*, L. Cardinal-flower.
Gerardia quercifolia, Pursh.
Collinsonia Canadensis, L. Rich-weed, Stone-root.
 12. *Linnæa borealis*, Linnæus. Twin-flower.
 13. *Eupatorium ageratoides*, L. White Snake-root.

The total number of species exhibited in 1902 was three hundred and eighty-seven.

The exhibit is continued this year but a list will not be published until 1904 as it cannot at this time be given for the whole year.

Ornithology.

The birds of the month have been exhibited as they were last year. A list of these migrants was given in the 1902 report, page 13, so will not be repeated here.

BIRDS SEEN IN SPRINGFIELD.

1903.	Spring observations.	1902.	1901.
Feb. 23.	Bluebird,	Feb. 27	Mar. 14
Mar. 3.	Bronzed Grackle,	28	13
3.	American Robin,	Mar. 1	17
3.	Red-winged Blackbird,	8	16
3.	Song Sparrow,	8	8
3.	Cedar Waxwing,		
7.	Black Duck,	8	
7.	Marsh Hawk,	15	
7.	American Osprey,	April 12	April 12
11.	Sharp-shinned Hawk,		
14.	Belted Kingfisher,	Mar. 15	19
14.	Phoebe,	15	Mar. 23
14.	Fox Sparrow,	14	22
14.	Tree Swallow,	April 11	April 11
15.	Savanna Sparrow,	14	19
15.	Meadowlark,		
15.	Northern Flicker,		
17.	Purple Finch,	Mar. 31	Mar. 31
23.	Canada Goose,	12	16
24.	Vesper Sparrow,	April 5	13
26.	Mourning Dove,	5	April 12
28.	Cowbird,	5	6
28.	Field Sparrow,	5	17
28.	Black-crowned Night Heron,	6	
28.	American Bittern,	5	
April 2.	Chipping Sparrow,	12	17
2.	Hermit Thrush,		30
2.	Pine Warbler,	14	13
6.	Great Blue Heron,	4	8
12.	Brown Thrasher,	29	May 12
12.	Ruby-crowned Kinglet,	16	2
17.	Yellow-palm Warbler,	14	April 19
20.	White-throated Sparrow,	21	
22.	Chimney Swift,	23	May 5
22.	Barn Swallow,	28	
22.	Yellow-bellied Sapsucker,	21	
26.	Black-throated Green Warbler,	May 1	2
29.	Northern Parula Warbler,	3	2
30.	Black and White Warbler,	April 29	3
30.	Myrtle Warbler,	19	30
30.	Blue-headed Vireo,		

May 1.	Kingbird,	May 2	
1.	Magnolia Warbler,	10	May 12
1.	Least Flycatcher,	April 22	April 27
2.	Towhee, Chewink,	28	May 12
2.	Yellow-throated Vireo,	May 5	8
2.	Bobolink,	8	11
3.	Warbling Vireo,	7	8
4.	Yellow Warbler,	5	15
7.	Bank Swallow,	April 30	15
7.	Wilson's Thrush,	May 6	12
7.	Catbird,	April 30	
8.	Ovenbird,	18	9
8.	Chestnut-sided Warbler,	May 5	12
8.	Rose-breasted Grosbeak,	4	10
8.	Grasshopper Sparrow,	April 29	13
8.	House Wren,	May 5	6
8.	American Redstart,	5	8
8.	Black-throated Blue Warbler,	7	15
8.	Blackburnian Warbler,	1	12
8.	Water Thrush,	14	9
8.	Wood Thrush,	3	
8.	Cliff Swallow,		
9.	Whip-poor-will,		
9.	Baltimore Oriole,	5	9
9.	Spotted Sandpiper,	April 21	2
9.	Solitary Sandpiper,	May 13	11
9.	Kingbird,	2	
10.	Nashville Warbler,	7	12
13.	Indigo Bunting,	12	15
14.	Scarlet Tanager,	5	11
14.	Northern Yellow Throat,	5	15
14.	Nighthawk,	9	
14.	Orchard Oriole,	21	
14.	Purple Martin,	April 23	April 30
16.	Black-poll Warbler,		
16.	Gray-cheeked Thrush,		
16.	Great-crested Flycatcher,		
16.	Red-eyed Vireo,	May 8	May 15
16.	Yellow-billed Cuckoo,	10	15
16.	Canadian Warbler,		
18.	Wood Pewee,	14	
23.	Prairie Warbler.		

Entomology.

The exhibits in this department are described so fully on pages 7 and 8 of this report that they need not be listed here.

Gifts to the Museum of Natural History.

MAY, 1902—MAY, 1903.

DEPARTMENT OF GEOLOGY.

- Geoffrey Benson. Mineralogical and geological specimens from Bundoran County, Donegal, Ireland.
Samuel Bowles. Petrified wood from Arizona.
Edward Chapin. Colophonite and spinel from Franklin, N. J.
Dr. Walter H. Chapin. Steatite from Wilbraham, Mass.
John M. Hall. Copper ore from Calumet and Hecla Mine.
William B. Kirkham. Collection of fossils and rocks.
William Orr. Basaltic column from Giant's Causeway, County Antrim, Ireland.
John Percy Stott. Arrow points from Ballymoney, Ireland.

DEPARTMENT OF BOTANY.

- Ames Estate. Century plant.
Chelsea Jute Mills, Brooklyn, N. Y. Specimens of jute showing the different stages of preparation from the plant to the finished articles.
George S. Lewis. Collection of woods, seeds, and fibers.
Mrs. C. Lugene. Century plant.
Mrs. Mary C. Sampson. Herbarium of North American ferns; and flora of the eastern United States.
J. Herbert Starr. Section of a hickory tree showing deformity.
Miss Josephine E. Strong. Shawl made of pineapple fiber, Fayal, Azores.
Mrs. C. Wilson. Seeds from Bahama Islands.

DEPARTMENT OF ZOOLOGY.

- Gurdon Bill. Muskrat group and a collection of birds.
Nathan D. Bill. Elk and bison groups with cases. American flamingo's nest, and a jaguar from the Forest Park collection.
J. J. Baggs. Cobra and centipede from Canton, China.
Mrs. P. E. Brown. Specimens of ramie.
Charles A. Emery. Photograph of duck hawk's eggs.
Robert O. Morris. Collection of birds and mammals.
Leon S. Smith. Skate's eggs and horseshoe crabs from Westbrook, Conn.
E. O. Tuttle. Flying squirrel.

SPECIAL COLLECTIONS AND GIFTS.

- Mrs. George Havens. Collection of coral and minerals.
W. E. Holmes. Samples of raw silk and silk in skeins and on spools.
Dr. J. Searle Hurlbut. Photographs of southern Indians.
Mrs. J. Searle Hurlbut. The Dr. J. Searle Hurlbut collection of Mexican curios, woods, shells, coins, stamps, and photographs.
Elizabeth H. Morton. Collection of minerals and miscellaneous material.
John H. Smith. Collection of Indian implements from the cemetery, Thompsonville, Conn.
Springfield Republican. Set of fifty-six engravings of printing presses.

MISCELLANEOUS.

Bortolo Cottini. Photographs; and specimens of jasper from Italy.

James Demacako. Shoes from Sparta, Greece.

Willis F. Penfield. Old-fashioned chair.

For contributions to the flower exhibit we are greatly indebted to the following persons:—

Miss Anna A. Adams.

Mr. C. W. Bennett, Chester, Vermont.

Mr. Thornton W. Burgess.

Dr. Robert A. Clark.

Mr. Joel H. Hendrick.

Mr. Walter E. Johnson.

Mr. Louis H. Allen.

Mr. Frank Bishop.

Mr. Roman A. Crane.

Dr. George Dimmock.

Mr. Oscar B. Ireland.

Mrs. Henry I. Seymour, Plymouth, Mass.

Mr. Solomon Stebbins.

Scientific Societies in Springfield.

Springfield Botanical Society.

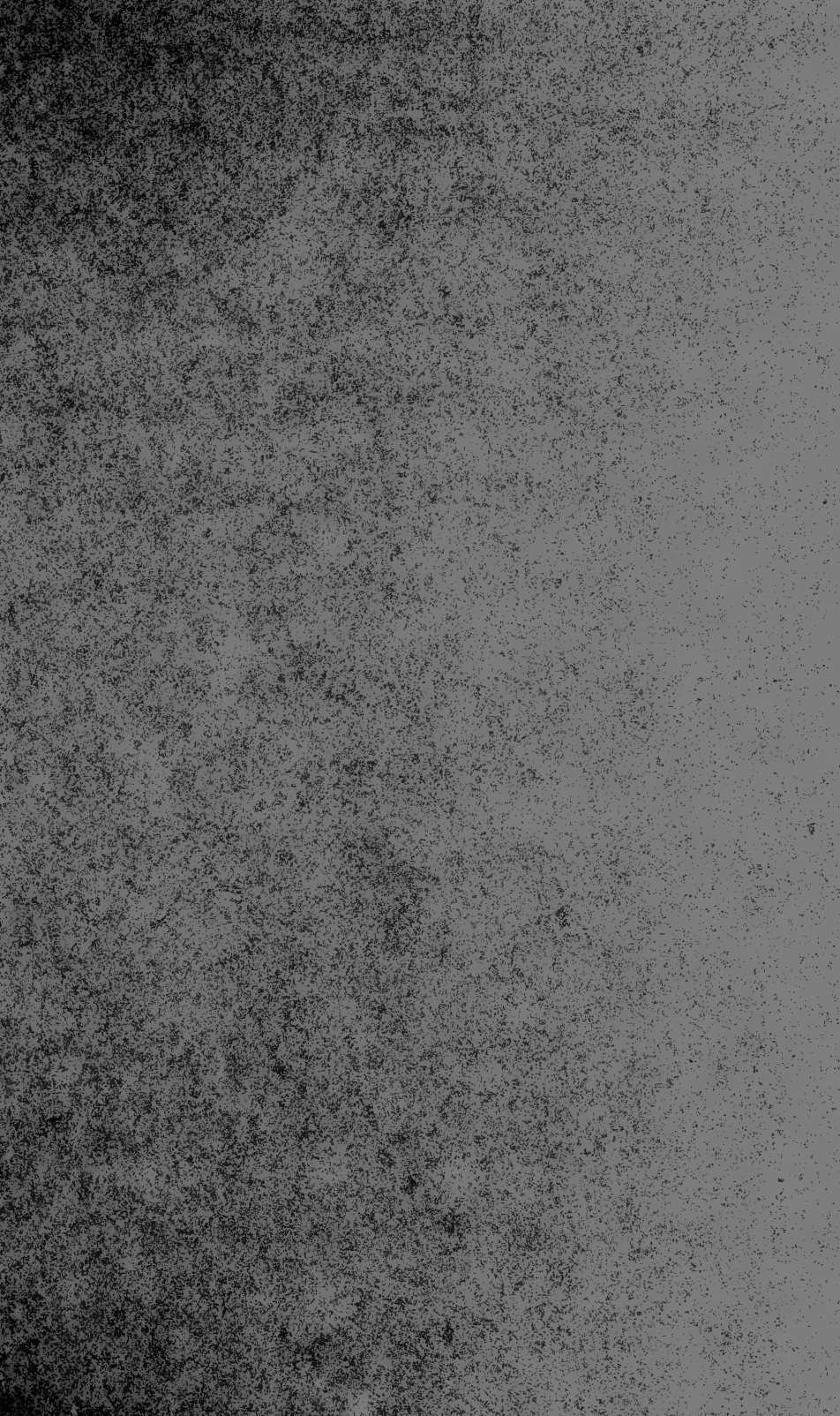
MRS. MARIA L. OWEN, Honorary President.
MISS FANNIE A. STEBBINS, Acting President.
MRS. S. O. ALLEN, Vice-President.
MRS. F. I. W. BURNHAM, Corresponding Secretary.
MISS ELIZABETH BOOTH, Recording Secretary.
MRS. K. N. WASHBURN, Treasurer.
MISS E. J. STEELE, Field Meeting Com.
MRS. MARIA L. OWEN, Curator.

Springfield Geological Club.

ROMAN A. CRANE, President.
ASHTON E. HEMPHILL, Vice-President.
MISS ELIZABETH ARNOLD, Secretary and Treasurer.
EX. COM., A. B. KIMBALL, MISS KATE B. SWIFT.

Springfield Zoological Club.

CHARLES B. WILSON, President.
ROMAN A. CRANE, Vice-President.
FREDERIC F. SMITH, Secretary.
MISS L. I. MATTOON, Treasurer.
EX. COM., DR. GEORGE DIMMOCK, FRANK E. WATSON.





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1903/04

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

REPORT OF THE MUSEUM
OF NATURAL HISTORY,
SPRINGFIELD, MASS., MAY,
NINETEEN HUNDRED AND FOUR

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING
MAY FIRST, NINETEEN HUNDRED AND FOUR

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

The Science Department.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year,
2 to 6 from March 21 to September 21, 1 to 5 from September
22 to March 20.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open
every day in the year, 2 to 6 from March 21 to September 21,
1 to 5 from September 22 to March 20.

Curator of the Museum of Natural History.

WILLIAM ORR.

Assistant Curator.

GRACE L. PETTIS.

Museum of Natural History.

Report of the Curator.

To the Directors and Members of the City Library Association :

The tenth annual report of the Museum of Natural History is hereby respectfully submitted.

In this review of the past year your attention is called to the quiet but steady progress made in the organization of the museum for more efficient service, to the generosity of the friends of the institution as shown by valuable gifts, and to the increase in the use of the collections by the people. Another fact of importance is the rapidly narrowing margin of space available for additional cases and new collections. Already the demands for floor room have made necessary some interference with the proper grouping and unity of the museum material.

Accessions.

The latter consideration naturally suggests the recent additions to the various departments. A most interesting illustration of the life and industry of the valley Indians is made by the Wilbraham relics of the stone age. They consist of a large number of implements and bowls discovered in a steatite quarry. Through the generosity of Mr. Nathan D. Bill, funds were provided for the work of excavation. Prof. A. L. Dakin conducted the investigation with great care and industry. The museum has now an unusually complete display of the methods of manufacture employed by the early Indian tribes. This collection is now arranged so as to be available for study. It is carefully labeled and mounted, and illustrated with photographs and charts of the quarry site. Space has been assigned in the smaller room on the second floor of the museum.

A part of the Wilbraham relics has been exchanged for Indian pottery of Peru, the Cherokee country, Missouri, Arizona, and New Mexico, from the Peabody Museum of Archaeology and Ethnology. Exchanges have also been made through Dr. Edward Hitchcock with the Gilbert Museum of Amherst College. From this institution, axes, celts, arrow points, and potsherds of the Connecticut valley were obtained.

In geology and mineralogy, the collections have been enriched by several notable gifts. Among these mention should be made of a fossil palm

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leaf from Keokuk, Iowa; a choice specimen of millerite on calcite from the same locality, hematite from Blandford, and fluorite and calcite from Cornwall, England. Mr. Luman Andrews, of Southington, Conn., has added to the botanical material 579 specimens, of which 141 are from Forest Park. Mrs. J. Searle Hurlbut has given a desk case in which the J. Searle Hurlbut collection of the woods of Nassau is now displayed to good advantage.

From the Henry S. Lee estate the museum has received a valuable collection of coins. This gift—of interest as a memorial of a friend and benefactor of the association—contains an unusually complete representation of American coinage. The English coins date back to 958 A. D., while China is represented by specimens dating to 2500 B. C. Besides the coins the collection contains many medals and badges of great historical interest. Two finely made cases for the proper display of the coins have been given by the trustees of the Horace Smith estate.

Mr. Robert O. Morris continues to give specimens in zoölogy. A notable addition is a wildcat taken in Blandford.

Mr. George S. Lewis has given material to complete the collections in botany already on hand and to provide a series of specimens for educational use.

Loan Collections.

During the year sets of material have been made up by the museum staff as loan collections to be used as illustrations for special talks. Each collection contains the substance, with full description and examples of the products or articles made therefrom. A few of the topics thus illustrated are Cochineal, Opium, Vegetable Ivory, Cork, Peat, Gypsum, Cinnabar, Asbestos, and Emery. These collections may be had by applying at the museum.

Special Exhibits.

As a means of interesting people in the museum and in the study of plants and animals, increased attention is paid each year to the special exhibits of specimens. On the flower table there have been displayed during the past year three hundred and thirty-three species. A list of the time of flowering of each plant is kept for the year and, as the data thus collected accumulate, interesting comparisons and conclusions in regard to the relations between the development of vegetation and the temperature conditions will be made possible.

The following account of the zoölogical exhibit will show the value of this department of the museum:

“ Because of the rarity of insects during the past year the number of kinds shown on the museum table devoted to our small living animals was less than the year before, yet many species were reared, including a brood of silkworms. The interest of the public in mosquitoes, on account of their lately discovered relation to the distribution of malarial diseases, led to the exhibition, not only of the different stages of mosquitoes, but also of other water insects. A number of kinds of salamanders were shown, as well as eggs and larvæ of one species. A securely confined active rattlesnake enabled those who gathered about the table to distinguish our dangerous from our harmless snakes, of which several were shown. It was surprising to see how quickly many children, putting aside superstition more easily than their elders, learned to like and pet the harmless spreading or hissing adders, that are generally thought to be poisonous.”

In the same manner the birds of the region are displayed as they appear as migrant, visitant, or permanent resident. Notes of arrivals are carefully kept and public interest in this branch of study fostered and directed by the publication of a bird book with dates of arrivals and spaces for notes and observations.

Through the kindness of Dr. H. W. Van Allen, the museum was enabled to place on exhibition a specimen of radium salt.

Lectures.

On November 25, a lecture on Radium was given in the Art Museum by Mr. A. B. Kimball of the science department of the High School. Mr. Kimball gave a very clear and interesting account of the substance.

Mr. Frank L. Chapman gave a course of six lectures on Birds in High School Hall under the auspices of the museum. The dates of the lectures were February 20, 27, March 5, 12, 19, 26. There was a good attendance and general satisfaction was expressed at the institution of such scientific lectures. The free-hand drawing pupils of the High School co-operated by making a number of posters descriptive of the lectures. These were displayed in the library and attracted much favorable comment.

Scientific Societies.

The Botanical Society has carried out a series of meetings at which papers relating to plant life and classification have been presented and discussed. A list of these meetings with topics and lecturers is given in the appendix to this report.

Apart from maintaining its meetings the Zoölogical Club has done a valuable service in making a card catalogue of the animals of the lower Connecticut valley. The following account of this catalogue shows its purpose and present condition :

“In 1897 the Springfield Zoölogical Club began a card catalogue of the animals of the lower Connecticut valley. This faunal list is growing rapidly, and, during the past year, the museum has furnished a case of drawers which already contains the card-list of animals, and to which will be added a similar list of plants of the same region, now being prepared under the auspices of the Springfield Botanical Society, by its recording secretary, Miss Elizabeth Booth.

“The importance of such records in the study of geographical distribution of plants and animals is self-evident, but a local biological survey is of slow growth, dependent on the interest taken from time to time by competent systematists in different groups of organisms. At present the most complete portion of this card-list is that devoted to birds, in which 304 species are recorded. Its completeness is largely due to work in the past by Prof. J. A. Allen and Mr. C. W. Bennett, and to present careful study of our birds by Mr. Robert O. Morris. Collections of beetles of Springfield were begun as early as 1868 by the late Mr. Solomon Stebbins, and by Mr. C. A. Emery. Dr. Dimmock collected many species during the next decade, and Mr. Frederick Knab, of Chicopee, has since built up a large collection of these insects. Resulting from these collections the card-list of beetles numbers 1,296 species. The total number of animals now recorded is 3,125.

“The mode of keeping these records is shown below, by an exact reproduction of the first record card for the elm-leaf beetle, now so destructive about Springfield.”

	<i>Galerucella luteola</i> , Müll.	
Springfield Zoölogical Club.	Family, <i>Chrysomelidae</i> .	No. 6912.
	Taken by <i>Frederick Knab</i> .	
	Locality, <i>West Springfield, Mass.</i>	Date, <i>5 June, 1892</i> .
	Identified by <i>Frederick Knab</i> .	
	<i>First known capture of the elm-leaf beetle in the vicinity of Springfield.</i>	

A list of meetings and topics of the club is given in the appendix of this report.

Other Meetings.

The Geological Club has held two meetings in the Science Museum as follows:

Mar. 18, 1904. A talk by Dr. W. H. Chapin on the Wilbraham Quarry, and the Indian pottery and implements found there.

Apr. 22. An account of Mt. Mica, near Paris, Me., and the tourmalines found there. Mr. W. G. Whitman.

Attendance of Classes.

A most important function of the museum is to co-operate with the schools of the city in developing an intelligent interest in nature among children. The museum officials provide every facility for visits of teachers and classes. Statistics given herewith show that this use of the museum is steadily growing in popularity.

Total number of classes for past year.....	54
City schools.....	30
Outside of city.....	24
Total number of pupils.....	1,135

The Albany Library School of forty members visited the museum this spring; also the Pratt Institute class of thirty members.

Figures for general attendance.

Average daily attendance.....	91
Average Sunday attendance.....	84
Average week-day attendance.....	94
Largest daily attendance.....	181
Smallest attendance.....	17
Estimated total yearly attendance.....	33,215

Progress in Organization.

During the past year the collections in Ornithology, Botany, and Archæology have been rearranged and made more effective for study and display.

A series of loan collections has been made up for use in schools. The arrangement for the lectures, especially for those by Mr. Frank L. Chapman on Birds, incurred a large amount of detail work, all of which was done or supervised by the museum authorities.

The Catharine Howard library has been catalogued by members of the library staff, and 1,020 cards filled out by the assistant curator.

It is gratifying to note that people are each year making more use of the museum as an interesting place to visit and a source of information on matters scientific. Such demands on the time and attention of the officials are gladly met.

New cases have been installed as follows:

Three on the second floor for archæological collections and one on the first floor for birds.

Your attention is called to the fact that recent additions, particularly in the departments of Archæology and Historical Relics, have made it necessary to place some of the historical material on the main floor. Such an arrangement is to be regretted, as thereby the systematic grouping of the museum collections can no longer be maintained. It would be highly desirable if special quarters could be provided for the historical material. Not only would the natural history collections be given much needed room and the demands for space met for several years, but a most interesting exhibit bearing on local history be made possible. In such a historical room valuable manuscripts now in possession of the library might well be displayed.

In Memoriam.

An early friend of the museum and an ardent lover and devoted student of nature has gone from us the past year in the death of Solomon Stebbins. Mr. Stebbins for many years was curator of the collections. He was an authority on the flora of this portion of the valley. His unselfish interest in his work and his services to the natural history collections merit this word of tribute. He was born in West Springfield, April 13, 1833, and died in Springfield, March 27, 1904.

Gifts to the Museum of Natural History.

MAY, 1903—MAY, 1904.

(Where not otherwise indicated all localities are Springfield.)

DEPARTMENT OF GEOLOGY.

- Albert Atherton. Iron pyrites.
Nathan D. Bill, 284 Maple street. Fossil palm leaf from Keokuk, Iowa. Millerite on calcite from Keokuk, Iowa.
B. Cooley, East Longmeadow, Mass. Sandstone formation from East Longmeadow.
Dr. A. M. Cushing, 137½ State street. Hematite from Mt. View Farm, Blandford, Mass.
George A. Denison, 45 Avon place. Ore from the "Hopeful" mine, Lincoln Co., N. M.
S. D. Heath, 259 Hancock street. Fluorite and calcite from Cornwall, England.
James W. Moore, Feeding Hills, Mass. Coal from Feeding Hills, Mass.
William C. Stone, 384 Union street, for A. P. Stone. Collection of fossils from Ohio.
Mrs. Edward I. White, 4 Chestnut street. Granite from Ascutney, Vt. Hornblende, Windsor, Vt.

DEPARTMENT OF BOTANY.

- C. J. Adolphson, 68 Pendleton avenue. White pine sections (*Pinus strobus*, L.).
Luman Andrews, Southington, Conn. 579 herbarium specimens; 141 are from Forest Park.
George Dimmock, Ph.D., Berkshire street. "Pita-wood," stalk of *Agave* as prepared for lining insect boxes.
Mrs. J. Searle Hurlbut, 33 School street. Photograph of a California redwood tree (*Sequoia sempervirens*, Endl.).
Misses Elsa and Ruth Hurlbut. Rubber tree (*Ficus elastica*, Roxb.).
Mrs. Hattie Kingsley, 423 Riverdale street, Chicopee, Mass. Seeds of the red sandal-wood tree (*Adenanthera pavonina*, L.).
George S. Lewis, Jr., 746 State street. Collection of fibers and fabrics. Palm-leaf and grass hats given to Mr. Lewis by O. J. Powers & Son of Athol, Mass.
Mrs. H. M. Phillips, 284 State street. Fan palm. (Living plant.)
Mrs. Frank C. Rice, 104 Maple street. Yucca. (Living plant.)
Michael Shapiro, 61 Congress street. Indian corn (*Zea mays*).
Ezra Mandeville Wilkins, 38 Jefferson avenue. Bark of redwood tree (*Sequoia sempervirens*, Endl.) from Washington state.

DEPARTMENT OF ZOOLOGY.

- Miss Mary A. Ball. Hornets' nest.
Nathan D. Bill, 284 Maple street. Shells of barnacles. Skull of beaver (*Castor fiber*, L.) from Copper river, Alaska. Collection of corals and sponges from Nassau, Bahamas. Echinoid shell known as "Sea beaver."
John Brearley, 555 Union street. Garter snake (*Eutaenia sirtalis*, L.).
Mrs. P. E. Brown, 25 Montrose street. Lot of young silkworms. Cocoon of moth (*Telea polyphemus*, Cram.). Specimens of wool.

- Dr. Robert A. Clark, 81 Eastern avenue. Spider found in a bunch of bananas.
- Miss Alice L. Coates, 327 Bay street. Specimens of a Brazilian beetle (*Desmonota variolosa*, Fab.), sometimes set in jewelry.
- E. O. Damon, Northampton, Mass. Brant (*Branta bernicla*, L.) from Northampton, Mass.
- Dr. Frank H. Haskins, 107 North Main street. Snail (*Limax*, sp.).
- S. D. Heath. Nest of trap-door spider.
- Charles H. Heywood, 325 Long Hill street. Gravel caddis-fly cases from Long Hill.
- George W. Hubbard, 94 Byers street. Chimney swift (*Chaetura pelagica*, L.).
- Mrs. J. Searle Hurlbut, 33 School street. Nest of a trap-door spider from California.
- Pair of Roman cattle horns.
- Walter E. Johnson, 57 Thompson street. Collection of birds' eggs.
- Frederick Knab, Chicopee, Mass. Rattlesnake (*Crotalus horridus*, L.). This snake, a mature female three feet long, was taken near Ashley ponds, in Holyoke, Mass., July 17, 1903, by Hezekiah Lombard, of Chicopee. It was kept alive at the museum until January 24, 1904.
- Walter Lanfry, 198 Massasoit street. Star-nosed mole (*Condylura cristata*, L.).
- Miss Glee Leete, Holyoke street. Two living cockroaches, one of a green species (*Panchlora*, sp.), that came to Springfield in bunches of bananas.
- Mrs. Nelson W. Merrill, 328 Union street. Two beetles (*Cremastochilus canaliculatus*, Kirby, and *Euphoria inda*, L.). Cocoon of a moth (*Telea polyphemus*, Cram.) securely fastened to an elm twig and inclosed in three leaves.
- Miss Josephine de Montigny, Berkshire street. Specimens of beetles (including *Calosoma scrutator*, Fab., *Hydrophilus ovatus*, G. & H., *H. triangularis*, Say, *Xyloryctes satyrus*, Fab., *Strategus antaeus*, Fab.), and of moths (including *Tropaea luna*, L., *Basilona imperialis*, Drury, *Marumba modesta*, Harr., *Smerinthus jamaicensis*, Drury, *Paonias myops*, S. & A.), all collected about electric lights.
- Robert O. Morris, 72 Temple street. Black duck (*Anas obscura*, Gmel.). Pair of pine grosbeaks (*Pinicola leucura*, Cab.).
- Miss Anna O'Brien, 14 Adams street. Large green beetle (*Calosoma scrutator*, Fab.).
- E. L. Pease, Longmeadow, Mass. Holboell's grebe (*Colymbus holboellii*, Reinh.).
- Mrs. A. F. H. Pillsbury, 55 Elliott street. Ichneumon (*Thalessa atrata*, Fab.).
- Charles Pinneo, City. Shoveler (*Spatula clypeata*, L.). [Exchange.]
- W. F. Potter, 136 Dwight street. Harvest-fly (*Cicada tibicen*, L.).
- Norton Richardson, 89 Catharine street. Specimens of polyzoa (probably *Pectinella magnifica*, Leidy) from Watershop pond.
- Donat Ruissiaux, Becket, Mass. Shoveler (*Spatula clypeata*, L.).
- James N. Southwick, Providence, R. I. Collection of shells.
- Miss Fannie A. Stebbins, 480 Union street. Larva of an owlet moth (*Cucullia asteroides*, Guen.). Undetermined larva of a geometrid moth, from cultivated blue clematis.
- H. P. Stone, 176 Pearl street. Large spotted salamander (*Amblystoma punctatum*, L.).
- Mrs. A. C. Thompson, Hampden, Mass. Skin of black snake (*Bascanion constrictor*, L.).
- Rev. W. E. Waterbury, 54 Fairfield street. Young box-turtle (*Cistudo carolina*, L.).
- Myron Williams, 35 Firglade avenue. Hog-nose snake (*Heterodon platyrhinus*, Latr.).

DEPARTMENT OF HISTORY OF MANKIND.

- Mrs. Ida Baldwin, 580 State street, for Frederick C. Joyner. Musical instrument.
- Nathan D. Bill, 284 Maple street. Collection of soapstone and trap Indian implements from Wilbraham, Mass. United States proof sets of coins for 1903 and 1904.

- Mrs. Nathan D. Bill, 284 Maple street. Fiji Island woman's girdle.
- J. T. Bowne, 121 Northampton avenue. Arrow points and knives from Arkansas. Trap implements from Wilbraham, Mass. [Exchange.]
- W. H. Chapin, M.D., 675 State street. Indian relics from Wilbraham, Mass., and other Connecticut valley localities.
- James D. Collins, 23 Florence street. Wood from Wakefield Tower, Tower of London, supposed to be nearly 700 years old.
- George Dimmock, Ph.D. Indian relics from Cumberland Gap, Ky., and other localities.
- Gilbert Museum of Indian Relics, Amherst, Mass. Indian relics from the Connecticut valley. [Exchange.]
- S. D. Heath, 259 Hancock street. Indian relics from Longmeadow, Mass.
- W. P. Hetherington, Belding, Michigan. Boots made from the skin of a deer.
- The Henry S. Lee collection of coins.
- George S. Lewis, Jr., 746 State street. Photographs used in illustrating the book "Old Springfield." Given to Mr. Lewis by Charles W. Chapin.
- Peabody Museum of American Archaeology and Ethnology, Cambridge, Mass. Pottery from Peru, Cherokee country, Missouri, Arizona, and New Mexico. [Exchange.]

MISCELLANEOUS GIFTS.

- Emily Belle Adams, 167 Maple street. One dollar.
- Mrs. J. Searle Hurlbut, 33 School street. An oak desk case for the J. Searle Hurlbut collection of woods.

Meetings of Scientific Societies Held in the Science Museum.

Springfield Botanical Society.

1903-1904.

- May 8. Evolution of sex. Frank E. Watson.
15. Ecology. Miss Anna E. Smith.
22. Fungous diseases of plants. Prof. George E. Stone.
29. Mosses. Miss Martha Goldthwait.
- June 5. Stomata. Mrs. W. C. Brown.
12. Symbiosis. Mrs. M. L. Owen.
19. Bacteria. H. C. Emerson, M.D.
26. The movement of sap. Mrs. S. O. Allen.
- July 31. Cornus. Miss W. C. Sanborn.
- Aug. 7. Nutrition of a tree. Miss Lucia A. Coleman.
14. Review of ferns. Frank Bishop.
28. Weeds. Mrs. F. I. W. Burnham.
- Sept. 4. Relations of animals to plants. George Dimmock, Ph.D.
11. Algæ. W. H. Chapin, M.D.
18. Parasitism. Miss Ida J. Rich.
25. Mushrooms. Miss E. J. Steele.
- Oct. 2. Distribution of seeds by wind and water. Miss Chloe St. John.
9. Distribution of seeds in other ways than by wind or water. Mrs.
Charles T. Leonard.
16. Conditions necessary for the best development of some species of
our native trees. W. F. Gale.
23. Nitrogen-fixing bacteria. Miss Fannie A. Stebbins.
30. A general exhibition of seeds.
- Nov. 21. Plant life in Bermuda. Frank E. Watson.
- Dec. 12, Jan. 9, Feb. 13, and March 12. Practical study of mosses.
- Apr. 15. Annual meeting.
22. Some local mosses. W. H. Chapin, M.D.
25. Lecture at Art Museum. Vanishing wild flowers. C. L. Pollard.
29. Coloration of flowers. Mrs. Maria L. Owen.

Springfield Geological Club.

1904.

- Mar. 18. Wilbraham soapstone quarry.—Indian pottery and implements
found. W. H. Chapin, M.D.
- Apr. 22. Tourmalines found at Mount Mica, near Paris, Me. Walter G. Whit-
man.

Springfield Zoological Club.

1903-1904.

- May 6. Protective and warning coloration in mollusks. F. F. Smith.
 June 3. Reviews of zoölogical literature.
 17. Artificial nests of ants. George Dimmock, Ph.D.
 Sept. 16. Reviews of zoölogical literature.
 Oct. 7. Corals. Frank E. Watson.
 21. Reviews of zoölogical literature.
 Nov. 4. Mosquitoes. Frederick Knab.
 18. Degeneration. Charles B. Wilson.
 Dec. 2. Reviews of zoölogical literature.
 16. Animal life in southern waters. Frank E. Watson.
 Jan. 6. Annual meeting.
 20. Newspaper zoölogy. George Dimmock, Ph.D.
 Feb. 3. Reviews of zoölogical literature.
 17. Trichina. George Dimmock, Ph.D.
 Apr. 6. An economic study of the food of birds. Miss Fannie A. Stebbins.

Scientific Societies in Springfield.

Springfield Botanical Society.

MRS. MARIA L. OWEN, Honorary President.
MISS FANNIE A. STEBBINS, Acting President.
MRS. S. O. ALLEN, Vice-President.
MRS. F. I. W. BURNHAM, Corresponding Secretary.
MISS ELIZABETH BOOTH, Recording Secretary.
MRS. K. N. WASHBURN, Treasurer.
MISS E. J. STEELE, Field Meeting Com.
MRS. MARIA L. OWEN, Curator.

Springfield Geological Club.

ROMAN A. CRANE, President.
ASHTON E. HEMPHILL, Vice-President.
MISS ELIZABETH ARNOLD, Secretary and Treasurer.
Ex. Com., A. B. KIMBALL, WALTER G. WHITMAN.

Springfield Zoological Club.

CHARLES B. WILSON, President.
ROMAN A. CRANE, Vice-President.
FRANK E. WATSON, Secretary.
MISS BERTHA BALLANTYNE, Treasurer.
Ex. Com., DR. GEORGE DIMMOCK, MISS FANNIE A. STEBBINS.



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FEB 1914

**REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASS., MAY,
NINETEEN HUNDRED AND SIX**

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING
MAY FIRST, NINETEEN HUNDRED AND SIX



LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914



AMERICAN FLAMINGO GROUP,

REPRESENTING THE NATURAL HABITAT.

GIVEN TO THE MUSEUM OF NATURAL HISTORY
BY NATHAN D. BILL.

The Science Department.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year, except July 4, Thanksgiving Day, and December 25, 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open every day in the year, except July 4, Thanksgiving Day, and December 25, 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20.

Curator of the Museum of Natural History.

WILLIAM ORR.

Assistant Curator.

GRACE L. PETTIS.

Museum of Natural History.

Report of the Curator.

To the Directors and Members of The City Library Association:—

The twelfth annual report of the Museum of Natural History is hereby respectfully submitted.

For the third time in the space of ten years the museum is facing the need of more room. Since the present building was opened in 1899, it has been the policy of the institution to place on exhibition only the choicest and most valuable material in its possession. But so generous and well advised has been the interest of the friends of the museum that each year has seen the addition of both wall and floor cases. Now the main hall and the two upper rooms are completely filled and a still more careful process of selection must be adopted. The present collections consist of the following cases:—

MAIN HALL.

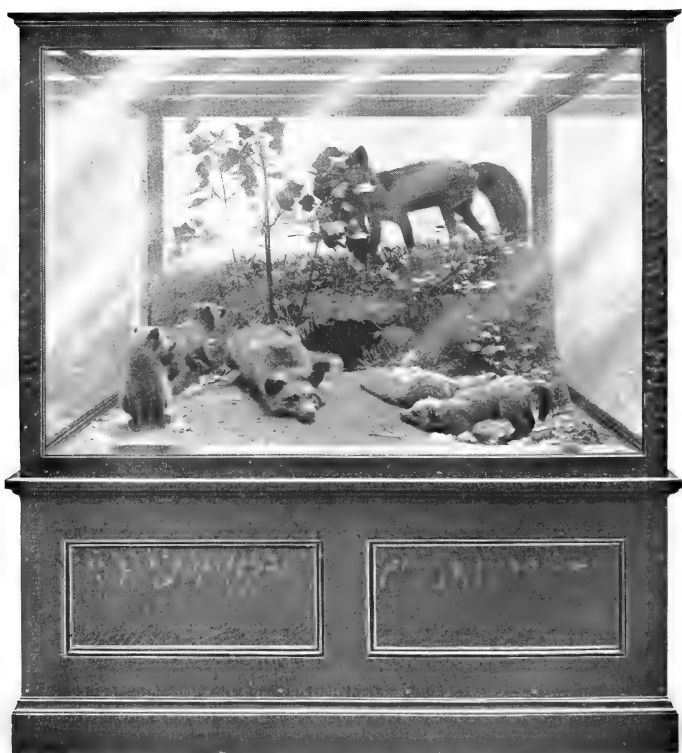
Mineralogy and geology,.....	7 cases.
Botany,	10 cases.
Zoölogy,	16 cases.
“	20 groups.
Henry S. Lee collection of coins,.....	2 cases.
	<hr/>
	55 cases.

UPPER ROOMS.

Archæology and relics,.....	15 cases.
	<hr/>
Total,	70 cases.

In addition there are on exhibition relief maps, photographs, and also specimens of such a size that they cannot be placed in cases.

This growth has gone on steadily from year to year without solicitation on the part of the officers and at a very small expense to the Association. Even the cases have in a large measure been provided by friends. Some idea of the increase in material is given by comparison of conditions now and in 1899. At the former date groups



RED FOX GROUP,

REPRESENTING THE NATURAL HABITAT.

GIVEN TO THE MUSEUM OF NATURAL HISTORY
BY GURDON BILL.

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1905/06

and cases amounted to only thirty in number, less than half the present installation.

Among additions for the year just closed special mention should be made of two striking groups—one of American flamingoes given by Mr. Nathan D. Bill and another of the red fox from Mr. Gurdon Bill. Mr. Nathan Bill also presented to the museum a fine example of petrification from the petrified forest of Arizona, and two cases for the collection of Indian baskets given by him last year. From Mr. A. B. Wallace two new cases have been received for the Robert M. Wallace collection of birds. Mr. Robert O. Morris has increased the collection of local mammals by a number of valuable specimens. An interesting series of historical and Indian relics has been secured from the Henry Morris estate, and the botanical department has been enriched by gifts from Mr. George S. Lewis and Mr. Luman Andrews.

The appendix contains a detailed list of donors and gifts to the various departments.

Special Exhibits.

A new feature of this work has been the display of the winter forms of plants. In all about one hundred specimens were displayed and gave visitors an insight into the beauty that is shown in even the dried and withered foliage and blossom. Popular interest continues to be attracted by the display of spring and summer plants and by the table set apart for birds in their season. A competition contest for the best colored crayon sketches of birds aroused much emulation among the school children and resulted in some very excellent work.

Lectures.

Through the generosity of Mr. Nathan D. Bill the pupils of the Central and Technical High Schools were given an interesting and instructive lecture by the celebrated student of Indian life, George Wharton James, on "Indian Basketry and the Hopi Snake Dance." There was an attendance of seven hundred. The free lecture came on December 5th and on the following evening it was repeated for the general public.

On February 20th Mr. Frank M. Chapman lectured in High School Hall on the "Pelican" to an audience of about two hundred and fifty people. Such lectures do much to awaken and stimulate interest in scientific matters and constitute a valuable phase of museum activity.

Classes.

A similar value attaches to the use of the collections by classes from schools. The figures for attendance are as follows:—

Classes from city schools with teachers,.....	44
Classes from out of city schools with teachers,.....	19
	<hr/>
Total number of classes,.....	63
Pupils in city classes,.....	867
Pupils in out of city classes,.....	363
	<hr/>
Total number of pupils,.....	1,230

A large number of classes with teachers have come from Chicopee and Chicopee Falls. More than ever pupils from the schools come as individuals to look over the collections, to identify specimens, and to sketch birds and flowers.

Scientific Societies.

The activities of the Zoölogical Club and the Botanical Society are shown in the schedules of meetings and outlines of topics as given in the supplement to this report.

Attendance.

Largest number of visitors on any one day, March 25th,	345
Smallest number of visitors on any one day, Feb. 4th,...	5
Estimated total yearly attendance,.....	34,844

Publications.

Bulletin No. 1, on the "Early Stages of Carabidæ," has found a wide circulation among museums and other institutions of learning, and has brought to the Association in exchange valuable monographs and reports from all parts of the world. It is to be hoped that more work of this kind may be undertaken by the museum.

School Collections.

Out of the Samuel Colton Booth minerals, under the direction of Miss Mary A. Booth, a series of twenty-three sets of 16 minerals each has been made up for the use of schools. The entire Booth collection has been rearranged and is now available for study.

WILLIAM ORR,
Curator.

Gifts to the Museum of Natural History.

MAY, 1905—MAY, 1906.

DEPARTMENT OF GEOLOGY.

- Nathan D. Bill. Petrified wood from Petrified Forest, near Adamana, Apache Co., Arizona.
- H. W. Butler. Conglomerate. Dighton, Bristol Co.
- H. G. Denver. Fossils from Moosehead Lake.
- William Nicol, Kingston, Ontario.
- Smaltite-chloanthite from Colset, New Ontario.
- Corundum from Craigmount, Combermere, Renfrew Co., Ontario.
- Niccolite and chloanthite, Cobalt, New Ontario.
- William Orr. Iron and copper ores. Peck Hill mine, Charlemont.

DEPARTMENT OF ZOOLOGY.

- Emily Belle Adams.
- English sparrow (pair) (*Passer domesticus*), Springfield.
- Chipping sparrow (pair) (*Spizella socialis*), Springfield.
- American redstart (*Setophaga ruticilla*), Agawam.
- Ruby-crowned kinglet (*Regulus calendula*), Springfield.
- Gurdon Bill. Red fox (*Vulpes fulvus*). Group consisting of two adult and four immature specimens.
- Nathan D. Bill. American flamingo (*Phoenicopterus ruber*). Group consisting of four adult and four immature specimens.
- George B. Dalrymple. Snake skin.
- Gardiner Helmick. Luna moth (*Tropaea luna*).
- Frederick Knab. Collection of tropical insects.
- Maude Knight. Collection of crabs from Westbrook, Conn.
- Robert O. Morris.
- Henslow's sparrow (*Ammodramus henslowii*), Longmeadow.
- Pigeon hawk (*Falco columbarius*), Northampton.
- American pipit (*Anthus pennsylvanicus*), Longmeadow.
- Wood duck (*Aix sponsa*).
- White-winged scoter (*Oidemia deglandi*), Agawam.
- Large brown weasel (*Putorius noveboracensis*), Hampden.
- Large brown weasel (*Putorius noveboracensis*), Hazardville, Conn.
- Little brown weasel (*Putorius cicognanii*), Riverdale and Hazardville, Conn.
- Short-tailed shrew (*Blarina brevicauda*), Springfield.
- White-footed mouse (*Peromyscus leucopus*), Springfield.
- Common house mouse (*Mus muscalus*), Springfield.
- Common meadow mouse (*Sciurus hudsonicus taquax*), Springfield.
- Brown or Norway rat (*Mus norvegicus*), Springfield.
- Southern red squirrel (*Microtus pennsylvanicus*), Northampton.
- Gray rabbit (*Lepus floridanus transitionalis*), Monson.
- Star-nosed mole (*Condylura cristata*), Hazardville, Conn.
- Brown bat (*Vespertilio fuscus*), Springfield.
- Canadian flying squirrel (*Sciuropterus sabrinus macrotus*), Wilbraham.
- Roland Saunders. Cecropia moth (*Samia cecropia*).
- William A. Schlesinger. Turkey vulture (*Cathartes aura*), Becket.

Charles Sheldon, Southampton. Leache's petrel (*Oceanodroma leucorhoa*) from Hampton Ponds.

DEPARTMENT OF BOTANY.

George Dimmock, Ph.D. Collection of botanical specimens from Cuba.
George S. Lewis, Jr. By-products of the cotton plant. Specimens of "Artificial silk."

DEPARTMENT OF HISTORY OF MANKIND.

Miss Mary A. Booth. Collection of Colonial relics consisting of flax, home-spun blanket, sheet, pillow slip, towel, sampler, and piece of linen. Handmade shoes, slippers, mittens, stockings, and vest. Drinking glass, candle lantern, iron thimble, night lamp, and oil lamp.

Robert Christie, Loughville Parish, Co. Antrim, Ireland. Three Indian implements and one specimen of peat.

George Dimmock, Ph.D. Collection of Indian implements from vicinity of Cumberland Gap, Kentucky.

Mrs. Richard S. Ely, Washington, D. C. Mummied cat.

H. W. Greene, M.D. Canoe paddles from Alaska.

Dudley Lewis. Souvenir handkerchief from the Centennial (1876).

George S. Lewis, Jr. Photographs of Java forest of quinine trees.

Daniel J. Marsh. Collection of photographs.

Henry Morris Estate. Historical and Indian relics from Springfield, Longmeadow, and Agawam.

Francis R. Richmond. Collection of photographs and plates illustrating scenes in Jamaica and Costa Rica.

John Percy Stott, Esq., Ballymoney, Co. Antrim, Ireland. Four Indian implements.

MISCELLANEOUS GIFTS.

Nathan D. Bill. Two cases for collection of Indian baskets.

Andrew B. Wallace. Two wall cases for the Robert M. Wallace collection of birds.

The following publications have been received in exchange for Bulletin No. 1 of the Museum, which was issued in December, 1904, and given a wide distribution among learned societies of different countries. Most of these publications were received from societies; a few from individuals, under whose names they are listed.

NORTH AMERICA—UNITED STATES.

Blatchley, W. S. A catalogue of the butterflies known to occur in Indiana. (17th rept. Geol. and nat. hist. Ind., 1892.)

— The Indiana of nature: its evolution. (Proc. Ind. acad. sci., 1903.)

— Insects in general and the orthoptera of Indiana in particular. (Proc. Ind. hort. soc., 1896.)

— The orthoptera of Indiana. (27th ann. rept. Dept. geol. and nat. resources of Ind., 1902.)

Carnegie institute. Pittsburgh. Annual report for 1905.

— The ninth celebration of Founder's day. 1904.

— Prize essay contest. 1904.

Cincinnati society of natural history. Journal. V. 20. 1901-4.

College of Charleston museum. Bulletin. V. 1, nos. 1, 3-5; v. 2, nos. 1, 3-4. 1905-6.

Colorado agricultural experiment station. Bulletin. Nos. 87-90. 1904.

Colorado college studies. Parts of v. 8, 10, 11, 12.

Colorado scientific society. Proceedings. V. 6; parts of v. 7, 8.

- Davenport academy of sciences. Proceedings. V. 9. 1901-3.
 Hartford scientific society. Bulletin. V. 1, no. 3. 1905.
 Iowa agricultural experiment station. Bulletin 62. 1901.
 John Crerar library. Chicago. 11th ann. rept. for 1905.
 Kansas academy of science. Transactions. V. 20, pt. 1. 1906.
 Nautilus. Boston. V. 19. 1905.
 New York botanical garden. Bulletin. V. 3, nos. 10-12; v. 5, no. 15.
 Ohio naturalist. V. 6, nos. 1-6. 1905-6.
 Rochester academy of sciences. Proceedings. Part of v. 4. 1904-5.
 Public museum of Milwaukee. 23d ann. rept. 1905.
 Roger Williams park museum. Providence. Bulletin. Nos. 2, 8, 10, 11, 13, 15.
 — Apteryx. V. 1, no. 2. 1905.
 State university of Iowa. Bulletin. No. 92, new ser. 1904.
 Tufts college studies. V. 2, no. 1. 1905.
 Wisconsin academy of sciences, arts and letters. Transactions. V. 14. 1902-3.
 University of Montana. President's report. 1903-4.
 — 7th announcement of the Biological station. 1905.
 — University bulletin. Nos. 25, 30. 1905-6.

CANADA.

- Central experiment farms. Ottawa. Bulletin. Nos. 47-53. 1905.
 Experimental farms. Annual reports for 1903-4.
 Le Naturaliste canadien. V. 32; v. 33, nos. 1-4. 1905.

MEXICO.

- Instituto geológico de México. Boletín. Num. 20-21. 1905.
 — Parergones. Tomo 1, num. 1-9.
 Sociedad científica "Antonio Alzate." Memorias y revista. Tomo 13, num. 9-10; 19, num. 11-12; 20, num. 11-12; 21, num. 1-12; 22, num. 1-6.

SOUTH AMERICA—ARGENTINE REPUBLIC.

- Museo nacional de Buenos Aires. Anales. Tom. 4-5. 1905.

BRAZIL.

- Museu paraense de historia natural e ethnographia. Boletim. Goeldi.—Os mosquitos no Pará.

CHILI.

- Porter, Carlos E. Breves instrucciones para la recoleccion de objetos de historia natural. 1903.
 — Catalogo razonado de los trabajos historico-naturales hechos 1894-1903. 1904.
 Revista chilena de historia natural. Año 8, num. 4-5; y divers. separata.

EUROPE—AUSTRO-HUNGARY.

- Naturwissenschaftlicher verein fuer Steiermark. Mittheilungen. 1904.
 Naturforschender verein in Bruenn. Verhandlungen. Bd. 42. 1903.
 — XXII Bericht der meteorologischen commission. 1902.
 — Schindler. Beitrag zur kenntnis der niederschlagverhaeltnisse Maehrens und Schlesiens. 1904.
 Wiener entomologische zeitung. Jahrg. 24; Jahrg. 25, heft. 1-4. 1905-6.

FRANCE.

- Association des naturalistes de Levallois-Perret. Annales. 1903-4.
 Feuille des jeunes naturalistes. Nos. 409-427. 1904-6.

- Janet, Charles. Anatomie de la tête du *Lasius niger*. 1905.
 — Description du matériel d'une petite installation scientifique. Part 1. 1903.
 — Observations sur les fourmis. 1904.
 Revue scientifique du Bourbonnais et du centre de la France. Ann. 17, no. 204;
 ann. 18; ann. 19, trim. 1. 1904-6.
 Société d'étude des sciences naturelles . . . d'Elbeuf. Bulletin. Ann. 23. 1904.

GERMANY.

- Berliner entomologische zeitschrift. Bd. 49-50. 1904-5.
 Kaiserl Leop.-Carol. akademie der naturforscher. Nova acta. V. 84, no. 1-2.
 1904-5.
 Nassauischer verein fuer naturkunde. Jahrbuecher. Jahrg. 57-58. 1904-5.
 Naturforschende gesellschaft des Osterlandes zu Altenburg, S.-A. Mittheilungen.
 Bd. 10-11. 1902-5.
 Naturwissenschaftlicher verein des regierungsbezirkes Frankfurt. Helios. Bd. 21-
 22. 1904-5.
 Naturwissenschaftlicher verein fuer das fuerstentum Lueneburg. Jahreshfte. 16.
 1902-4.
 Naturwissenschaftlicher verein fuer Neuvorpommern und Ruegen in Greifswald.
 Mittheilungen. Bd. 35-36. 1903-4.
 Naturwissenschaftlicher verein zu Bremen. Abhandlungen. Bd. 17, heft 1. 1905.
 Oberhessische gesellschaft fuer natur- und heilkunde. 34ter Bericht. 1905.
 Senckenbergische naturforschende gesellschaft in Frankfurt am Main. Bericht.
 1904, 1905.
 Zeitschrift fuer systematische hymenopterologie und dipterologie. Jahrg. 5; Jahrg.
 6, hefte 1-3. 1905-6.
 Zoologisches museum zu Berlin. Bericht. 1903-4.
 — Mittheilungen. Bd. 1-2; Bd. 3, heft 1. 1898-1905.

GREAT BRITAIN.

- Entomologist's record and journal of variation. V. 17. 1905.
 Irish naturalist. V. 14; v. 15, nos. 1-5. 1905-6.
 Manchester literary and philosophical society. Memoirs and proceedings. V. 49;
 v. 50, pt. 1.
 Natural history society of Glasgow. Transactions. V. 6, pt. 3; v. 7, pt. 1-2.
 1901-4.

ITALY.

- Accademia delle scienze fisiche e matematiche. (Sez. d. Soc. reale di Napoli.)
 Indice generale dei lavori pubblicati dal 1737 al 1903. 1904.
 — Rendiconto. Ser. 3: v. 10, fasc. 8-12; v. 11, fasc. 1-7.
 Museo zoologico della reale università di Napoli. Annuario. V. 1. 1901-4.
 Redia. Giornale di entomologia. V. 1-2. 1903-5.
 Società di naturalisti in Napoli. Bolletino. V. 18. 1904.
 Società toscana di scienze naturali. Proc. verbali. V. 14, nos. 6-10; v. 15, no. 1.
 1904-5.

RUSSIA.

- Naturforscher gesellschaft bei der universitaet Jurjew (Dorpat). Archiv fuer die
 naturkunde Liv-, Ebst- und Kurlands. Biol. ser. 2, Bd. 12, lief. 3.
 — Schriften. Nos. 13-15. 1904.
 — Sitzungsberichte. Bd. 13, heft 3. 1903.
 Naturforscher-verein zu Riga. Korrespondenzblatt. Jahrg. 47. 1904.

SWEDEN.

Arkiv för botanik. Bd. 4; Bd. 5, häfte 1-2. 1905-6.

Arkiv för zoologi. Bd. 2; Bd. 3, häfte 1. 1904-6.

Entomologisk tidskrift. Arg. 25; arg. 26, häfte 1-3.

SWITZERLAND.

Aargauische naturforschende gesellschaft. Mittheilungen. Heft. 10. 1905.

Naturforschende gesellschaft in Basel. Bd. 15, heft 3; Bd. 17; Bd. 18, heft 1.
1904.

Schweizerische naturforschende gesellschaft. Mittheilungen. Bd. 85-86.

OCEANICA—AUSTRALIA.

Australian museum. Sydney. Records. V. 6, no. 1. 1905.

Birds Seen in Springfield.

	1906.	1905.	1904.	1903.	1902.	1901.
Bluebird.....	Feb. 23	Mar. 12	Mar. 11	Feb. 23	Feb. 27	Mar. 14
American Robin.....	" 24	" 17	" 14	" 3	" 1	" 17
Fox Sparrow.....	" 26	" 20	" 26	Mar. 14	Mar. 14	" 22
Song Sparrow.....	" 26	" 9	" 12	" 3	" 8	" 8
Bronzed Grackle.....	" 26	" 18	" 20	" 3	Feb. 28	" 13
Meadowlark.....	Mar. 10	" 26	Apr. 4	" 15		
Red-winged Blackbird.....	" 11	" 18	Mar. 19	" 3	Mar. 8	" 16
Black Duck.....	" 13	"	" 20	" 7	" 8	
Marsh Hawk.....	" 13	" 23	" 19	" 7	" 15	
Red-shouldered Hawk.....		" 18				
Mourning Dove.....	" 22	" 28	" 11	" 26	Apr. 5	Apr. 12
Hooded Merganser.....		" 24				
Cedar Waxwing.....	" 25	" 26	" 12	" 3		
Black-Crowned Night Heron.....		" 28	" 27	" 28	" 6	
Kingfisher.....	" 31	" 26	Apr. 4	" 14	Mar. 15	" 19
Woodcock.....	Apr. 3		" 30		Apr. 5	
Rusty Blackbird.....	" 4	" 23	" 2			
Vesper Sparrow.....	" 4	Apr. 1	" 10	Apr. 24	" 5	Mar. 13
Purple Finch.....	" 4	Mar. 19	" 9	Mar. 17	Mar. 31	" 31
Canada Goose.....	" 4	" 24	Mar. 20	" 23	" 12	" 16
Phoebe.....	" 5	" 23	" 25	" 14	" 15	" 23
Cowbird.....	" 7	Apr. 1	Apr. 9	" 28	Apr. 5	Apr. 6
Tree Swallow.....	" 7	Mar. 26	" 5	" 14	" 11	" 11
Great Blue Heron.....	" 7	Apr. 9		Apr. 6	" 4	" 8
Savanna Sparrow.....	" 7	" 9	" 16	" 15	" 14	" 19
Swamp Sparrow.....		" 8				
Yellow-bellied Sapsucker.....	" 10	" 7	" 17	" 22	" 21	
Pine Warbler.....	" 10	" 1	" 9	" 2	" 14	" 13
Wood Duck.....	" 12		Mar. 24			
American Osprey.....	" 12	" 8	Apr. 17	" 7	" 12	" 12
Cooper's Hawk.....	" 12					
Hermit Thrush.....	" 14	" 7	" 9	" 2		" 30
Northern Flicker.....	" 14	Mar. 31	Mar. 28	Mar. 15		
Field Sparrow.....	" 14	Apr. 1	Apr. 2	" 28	" 5	" 17
Ruby-crowned Kinglet.....	" 14	" 12	" 15	Apr. 12	" 16	May 2
Barn Swallow.....	" 14	" 22	" 30	" 22	" 28	
Yellow Palm Warbler.....	" 14	" 8	" 10	" 17	" 14	Apr. 19
Chipping Sparrow.....	" 15	" 1	" 15	" 2	" 12	" 17
White-throated Sparrow.....	" 16	" 17	" 19	" 20	" 21	
Pied-billed Grebe.....	" 20		" 23			
Myrtle Warbler.....	" 21	" 20	" 15	" 30	" 19	" 30
Pectoral Sandpiper.....	" 21					
Chewink: Towhee.....	" 21	" 28	May 5	May 2	" 28	" 12
Chimney Swift.....	" 22	" 20	Apr. 23	Apr. 22	May 5	" 23
Brown Thrasher.....	" 25	" 25	" 30	" 12	Apr. 29	May 12
Purple Martin.....	" 27	" 13	" 24	May 14	" 30	" 23
Sharp-shinned Hawk.....	" 28					
Black-throated Green Warbler.....	" 30	" 28	" 30	Apr. 26	May 1	" 2
Black and White Warbler.....	" 30	" 25	" 30	" 30	Apr. 29	" 3
Blue-headed Vireo.....	" 30	May 3	" 30	" 30		
Yellow-throated Vireo.....	" 30	" 5	May 5	May 2	May 8	" 5
Spotted Sandpiper.....	" 30	Apr. 25	" 5	" 9	Apr. 21	" 2
Greater Yellow-legs.....	" 30					

BIRDS SEEN IN SPRINGFIELD.

	1906.	1905.	1904.	1903.	1902.	1901.
Nashville Warbler.....	May 1	May 3	May 12	May 10	May 7	May 12
Blackburnian Warbler.....	" 1	" 3	" 5	" 8	" 1	" 12
Parula Warbler.....	" 2	" 3	" 6	Apr. 29	" 3	" 2
Yellow Warbler.....	" 2	" 3	" 5	May 4	" 15	" 5
Rose-breasted Grosbeak.....	" 2	Apr. 29	" 6	" 8	" 4	" 10
Chestnut-sided Warbler.....	" 3	May 3	" 6	" 8	" 5	" 12.
Catbird.....	" 3	" 3	" 5	" 7		Apr. 30
Least Flycatcher.....	" 3	" 3	" 4	" 1	Apr. 27	" 22
Ovenbird.....	" 3	" 3	" 4	" 8	May 9	" 18
Wood Thrush.....	" 3	" 3	" 5	" 8	" 3	
Cliff Swallow.....	" 4	" 8		" 8		
Green Heron.....	" 4					
Northern Water Thrush.....	" 4	" 6	" 5	" 8	" 14	May 9
Kingbird.....	" 4	" 1	" 5	" 1	" 2	
Baltimore Oriole.....	" 5	" 3	" 7	" 9	" 5	" 9
Black-throated Blue Warbler.....	" 5	" 3	" 6	" 8	" 7	" 15
Bobolink.....	" 5	" 6	" 5	" 2	" 8	" 11
Bank Swallow.....	" 5	Apr. 30	Apr. 30	" 7	Apr. 30	" 15
Alder Flycatcher.....	" 5	May 2	June 3			
Great-crested Flycatcher.....	" 5	" 13	May 8			" 16
Yellowlegs.....		" 6				
Pigeon Hawk.....	" 6					
White-eyed Vireo(Wilbraham, Mass.)			" 7			
Wilson's Thrush.....	May 7	" 2	" 5	" 7	May 6	" 12
Scarlet Tanager.....	" 7	" 4	" 7	" 14	" 5	" 11
Northern Yellow-throat.....	" 7	" 3	" 8	" 14	" 5	" 15
American Bittern.....			" 7	Apr. 28	Apr. 5	
American Redstart.....	" 8	" 3	" 6	" 8	May 5	" 8
Ruby-throated Hummingbird.....	" 8	" 9	" 11		" 2	" 13
Solitary Sandpiper.....	" 8	" 6	" 10	May 9	" 13	" 11
House Wren.....			" 8		" 5	" 6
Warbling Vireo.....	" 9	Apr. 29	" 1	" 3	" 7	" 8
Grasshopper Sparrow.....	" 10	May 11	" 7	" 8	Apr. 29	" 13
Lincoln's Sparrow.....		" 12				
Magnolia Warbler.....	" 13	" 3	" 10	" 1	May 10	" 12
Wilson's Warbler.....	" 13	" 12	" 20			
Red-eyed Vireo.....	" 13	" 4	" 5	" 16	" 8	" 15
Duck Hawk.....	" 13					
Night Hawk.....	" 13	" 6	" 12	" 14	" 9	
Whip-poor-will.....	" 13	" 5	" 7	" 9		
Indigo Bird.....	" 13	" 3	" 8	" 13	" 12	" 15
Least Sandpiper.....		" 13	" 14		" 14	
Wood Pewee.....	" 14	" 6	" 11	" 18	" 14	
Canadian Warbler.....	" 14	" 9	" 13	" 16		
Tennessee Warbler.....	" 16	" 12				
Olive-backed Thrush.....	" 16	" 10	" 13			
Yellow-bellied Flycatcher.....		" 17	" 14		" 14	
Black-billed Cuckoo.....		" 17	" 22		" 23	
White-crowned Sparrow.....	" 17	" 13	" 20			
Black-poll Warbler.....	" 17	" 13	" 7	" 16		
Olive-sided Flycatcher.....	" 13	" 8				
Louisiana Water Thrush.....	" 13	" 3				
Bay-breasted Warbler.....	" 13	" 13	" 20		" 10	
Short-billed Marsh Wren.....			" 21			
Prairie Warbler.....			" 22			
Orchard Oriole.....			June 3	" 14	" 21	

Meetings of Scientific Societies Held in the Science Museum.

SUBJECT OF MEETINGS.

Springfield Botanical Society.

- 1905.
- May 5. The herbarium. Mrs. Maria L. Owen.
12. Protection of plants from animals. Rev. Herbert Woodin.
19. Analysis of liliaceae. Miss Fannie A. Stebbins.
26. Uses of the liliaceae. Miss Mary F. Paine.
- June 2. Water organisms. Mr. Farrell.
9. Analysis of rosaceae. Mr. C. L. Pollard.
15. Flora of Nantucket. Mrs. M. L. Owen.
23. My grandmother's garden. Mrs. Florence I. W. Burnham.
30. Mendel's law as applied to plants. Mr. Frank E. Watson.
- July 7. Poisonous plants. Miss S. E. Booth.
14. The ericaceae. Mrs. E. L. Leonard.
28. Odors of plants. Mrs. E. J. Lazelle.
- Aug. 4. Field day at Rockrimmon to study ferns.
11. Germination. Mr. Frank D. Bishop.
18. Leguminoseae. Mr. F. E. Watson.
25. Trees of Georgia. Dr. George Dimmock.
- Sept. 1. Medicinal plants. Mrs. K. N. Washburn.
8. Exhibit and talk on plants from Block Island. Mr. Frank D. Bishop.
15. Flora of Cuba. Dr. George Dimmock.
22. Recent botanical literature. Mr. C. L. Pollard.
29. Coloration of leaves. Mrs. S. O. Allen.
- Oct. 6. Arctic flora. Mr. W. S. C. Russell.
13. Second paper on flora of Nantucket. Mrs. M. L. Owen.
20. Exhibition of seeds of rosaceae, leguminoseae, liliaceae, and ericaceae.
Miss Fannie A. Stebbins.
27. The value of rosaceae. Miss E. J. Steele.
- Dec. 9. Uses of ericaceae. Mr. A. Vincent Osmun.
- 1906.
- Jan. 13. The so-called psychic life of plants. Dr. George E. Stone.
Feb. 16. A report of the New Orleans meeting of the A. A. A. S. Miss F. A. Stebbins.
- March 10. Plant life of Florida Keys. Mr. C. L. Pollard.
April 12. School gardens. Mr. W. D. Hemenway.
20. Annual meeting.
27. DeVries theory. Miss Fannie A. Stebbins.

The Springfield Zoological Club.

- 1905.
- May 18. Have we outgrown Darwinism? Prof. H. W. Conn.
June 7. Recent zoölogical literature. George Dimmock, Ph.D.
- 1906.
- March 10. Meeting of the executive committee.
April 11. The bony system. Dr. Walter H. Chapin.
April 25. Local birds. Miss Emily Belle Adams.

Scientific Societies in Springfield.

Springfield Botanical Society.

- MRS. MARIA L. OWEN, Honorary President.
MISS FANNIE A. STEBBINS, Acting President.
MRS. S. O. ALLEN, Vice-President.
MRS. F. I. W. BURNHAM, Corresponding Secretary.
MISS ELIZABETH BOOTH, Recording Secretary.
MISS MARY F. PAINE, Treasurer.
MISS CHLOE ST. JOHN, Auditor.
MISS E. J. STEELE, Chairman Executive Committee.
MISS WINIFRED S. SANBORN, Chairman Field Meeting Committee.
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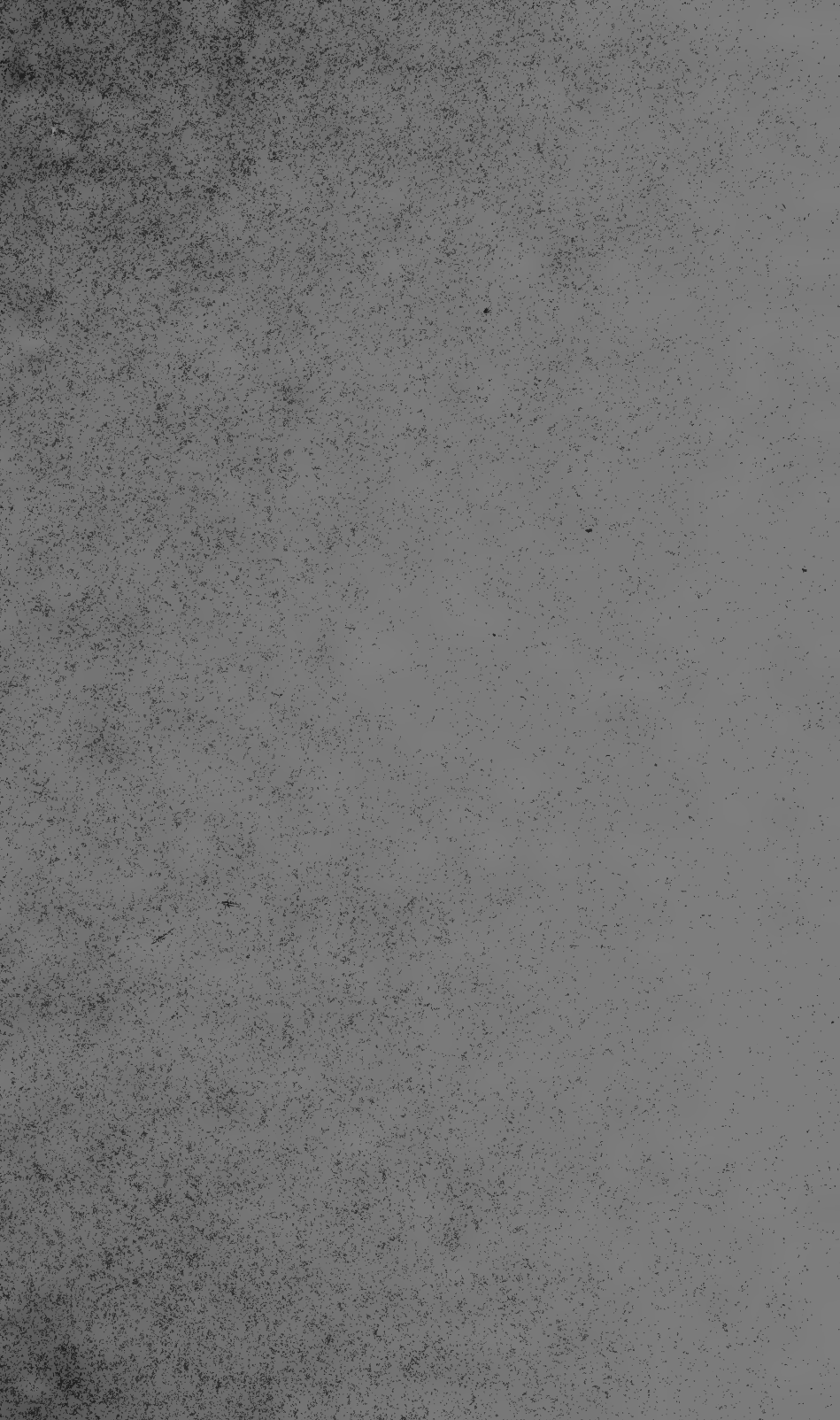
Springfield Geological Club.

- ROMAN A. CRANE, President.
ASHTON E. HEMPHILL, Vice-President.
MISS ELIZABETH ARNOLD, Secretary and Treasurer.
Ex. Com., A. B. KIMBALL, WALTER G. WHITMAN.
-

Springfield Zoological Club.

- CHARLES B. WILSON, President.
ROMAN A. CRANE, Vice-President.
MISS GRACE L. PETTIS, Secretary and Treasurer.
Ex. Com., DR. GEORGE DIMMOCK, MISS FANNIE A. STEBBINS.







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LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

REPORT OF THE MUSEUM
OF NATURAL HISTORY,
SPRINGFIELD, MASS., MAY,
NINETEEN HUNDRED AND FIVE

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING
MAY FIRST, NINETEEN HUNDRED AND FIVE

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

The Science Department.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year,
2 to 6 from March 21 to September 21, 1 to 5 from September
22 to March 20.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open
every day in the year, 2 to 6 from March 21 to September 21,
1 to 5 from September 22 to March 20.

Curator of the Museum of Natural History.

WILLIAM ORR.

Assistant Curator.

GRACE L. PETTIS.

Museum of Natural History.

Report of the Curator.

To the Directors and Members of The City Library Association :—

The eleventh annual report of the Museum of Natural History is hereby respectfully submitted.

There is increasing testimony to the influence of the museum in arousing an intelligent interest in the study of nature among the people of the community. Such evidence is given by the figures for attendance, by the use of the collection by classes and by words of appreciation from visitors. Among school children in particular the museum is known as a place worth visiting. It is the desire of the officials to promote not only scientific knowledge on the technical side, but also to lead to some appreciation of the beauty of nature and of her spiritual meaning.

A quiet and steady growth of the collections has taken place during the year. Gifts from friends have made this increase possible, and of these detailed mention is made under the separate departments and in the appendix.

A comprehensive card catalogue of the museum material is now in preparation. This will be of value for purposes of reference, and will be of great help to students who use the collections.

The museum has, during the year, issued for the first time a scientific bulletin, comprising the results of original investigation. This monograph, entitled "The Early Stages of Carabidæ," was prepared by George Dimmock of this city and Frederick Knab, custodian of the Museum of the Illinois State University, Urbana, Illinois. This monograph has been sent to leading scientific societies, and as a result the museum has established relations with many important organizations in all parts of the world. Lectures and special exhibits have been maintained with success. Our local scientific societies continue to co-operate in a most efficient manner with the museum. As a result of the constant increase in material and the placing of new cases the floor space is almost entirely occupied, and the question of an addition to the present building must soon be faced by the association. Such an extension was anticipated in the original plans and can be made at no great cost.

Accessions.**Archaeology.**

In this department the museum has been enriched by the gift of a choice collection of 200 Indian baskets procured by Mr. Nathan D. Bill in California.

These baskets, some of which are over 100 years old and others comparatively modern, represent the work of twenty different tribes of the western coast of America, including Alaska.

Each tribe has its own peculiar patterns, and the specimens in design and coloring show the true artistic sense of these primitive people.

The collection includes water bottles made of coarse grasses or wicker smeared with pitch to make them water tight, cooking baskets of a surprisingly close weave, and used previous to the introduction of pottery; carrying and storage baskets, many of which would hold a wheelbarrow load, others for seed or grain sifting and grinding, and others apparently made to show the skill of the weaver.

As cases and labels are yet to be made, this collection will not be on exhibition until fall.

Geology.

Mr. Bill has also given a series of photographs, together with specimens of lava material and a relief map — the whole illustrating the great volcanic eruptions of Mont Pelé, on the Island of Martinique, in May and August, 1902. This department has also received specimens of silicified wood from Mr. William Arms, fossils from Mr. J. T. Bowne, and silurian fossils from Mr. G. W. Holden. Other accessions are noted in the appendix.

Botany.

Mr. Luman Andrews of Southington, Conn., has given a well-mounted collection of 652 herbarium specimens. The total number given by him is now 2,265. Through the kindness of Mr. Andrews the museum has been able to display a loan exhibition of water-colors of wild and cultivated flowers done by Mrs. Andrews with great fidelity to form and color. Mr. John Reed of this city has presented a collection of 124 Philippine woods. Mr. George S. Lewis, Jr., continues to take a helpful interest in this department, and has made many valuable additions in specimens and photographs.

Zoology.

A notable and valuable gift has been made by Robert M. Wallace of his private collection of mounted birds. This contains 252 specimens, and through this gift it has been possible to make more nearly complete the bird collection already in possession of the museum.

Mr. Robert O. Morris has given several specimens. From Mr. John M. Graham there has been received a fine example of the white coat seal of Newfoundland. Arrangements are now being made for the installation of two attractive groups.

Branch Collection.

As an aid to bird study a carefully selected collection has been placed in the branch library at Indian Orchard. This exhibit comprises some of the more common, permanent residents and spring migrants.

Special Exhibits.

The custom of displaying wild flowers as they appear and birds in their season has been continued with excellent results. Lists of the time of flowering of plants and of appearance of birds are also kept. Friends of the museum by their reports of observations have aided greatly in the preparation of lists. There is an increasing demand for the booklet on Bird Migration, and it is hoped to issue a new edition another year.

Through the courtesy of the artist the museum was able to display in the month of January, the Chaloner paintings of Californian wild flowers.

Since April first the Andrews paintings of wild and cultivated flowers, 484 in number, have been on exhibition.

For two weeks in November, 9-22, 1904, the museum was used to show a series of charts, diagrams, and photographs, dealing with modern methods of combating tuberculosis, "the great white plague," commonly known as consumption. Most suggestive and instructive were the charts showing how the disease had been controlled and reduced in such centers of population as Boston. As a result of this exhibition and of the lectures given in connection with it steps were taken to safeguard the city and an organization formed to fight the disease. This exhibit was made by the Boston Society for the relief and control of tuberculosis.

Lectures.

On February 6, Mr. Frank M. Chapman gave a lecture in High School Hall under the auspices of the museum. His subject was "A Flamingo City."

Miss Emily Belle Adams has conducted a series of Bird Talks in the museum.

Scientific Societies.

Both the Zoölogical Club and the Botanical Society have maintained a valuable and interesting series of meetings. Outlines of topics and dates of meetings are given in the appendix. The Geological Club has held no meetings during the past year.

Attendance.

Number of classes from city.....	.61
Out of city.....	.17

Total.....	.78
Pupils in city classes.....	.926
Pupils in out of city classes.....	.210

Total.....	1,136

These figures testify to a sustained interest in this line of work. Outside classes were from Enfield, Holyoke, Westfield, Hazardville, Chicopee, and Mittineague.

The estimated total yearly attendance was 34,670.

WILLIAM ORR,

Curator.

Gifts to the Museum of Natural History.

MAY, 1904—JUNE, 1905.

DEPARTMENT OF GEOLOGY.

- William Arms. Silicified wood from Arizona.
Nathan D. Bill. Relief map of Island of Martinique showing Mont Pele; a set of 12 photographs, and dust and lava from the volcano.
George L. Blanchard, Montpelier, Vt. Three specimens of granite from Windsor, Vt.
J. T. Bowne. Fossils from near Turner's Falls, Mass.
Samuel Bowles. Silicified wood from Arizona.
Mrs. Henry Brown, Feeding Hills, Mass. Pebbles from the Massachusetts coast.
Freeman N. Bull, Joplin, Mo. Galena from Joplin, Mo.
George Dimmock, Ph.D. Coal from Cranston, R. I.
George W. Holden. Collection of fossils from bed of old silurian ocean near Cincinnati, Ohio.
William B. Kirkham. Collection of fossils and minerals.
Robert Marchant. Arsenopyrite, Atwater's quarry, Westfield, Mass.
Miss Edith L. Morse, Beaufort, S. C. Fossil shark's teeth and phosphate rock from Port Royal, S. C.
L. P. Sykes. Quartz crystals.

DEPARTMENT OF BOTANY.

- Luman Andrews, Southington, Conn. Collection of 652 herbarium specimens.
H. W. Carter. Cotton, hemp and jute twines.
John Dalrymple. Section of wood showing abnormal growth.
J. T. Herrick, M.D. Sections of palm leaf bearing inscriptions.
Oscar B. Ireland. Cotton plant (*Gossypium herbaceum*).
Miss Anna L. Lewis, Blandford, Mass. Fungus growth (*Fomes sp.*).
George S. Lewis, Jr. 60 specimens of woods, with catalogue. Collection of fungi. Palm leaves made into baskets by Africans. Illustrations of the development of the cocoanut and cocoa harvesting.
Mrs. Oliver Marsh. Section of the lace bark tree (*Lagetta lintearia*).
Roscoe R. Moody. Chinquapins or dwarf chestnuts (*Castanea pumila*) from Tennessee.
John Reid. Collection of 124 Philippine woods.

DEPARTMENT OF ZOOLOGY.

- C. J. Adolphson. Queen of honey bee (*Apis mellifica*).
Nathan D. Bill. A collection of mammals including mounted heads of several large species, alcoholic specimens, and coral from Nassau, N. P.
Enos W. Boise, Blandford, Mass. Wild cat or bay lynx (*Lynx rufus*) from Blandford, Mass.
Mrs. H. H. Bowman. Loon (*Gavia imber*).
Century Company, Union Sq., N. Y. 152 colored plates of the American flamingo (*Phoenicopterus ruber*).

- C. Abbott Davis, Curator Robert Williams Park Museum of Providence, R. I.
6 species of unionidae.
- John M. Graham. White seal (*Phoca groenlandica*) from Newfoundland.
- George M. P. Holt. Paper nautilus (*Argonauta tuberculata*), 7 specimens
from the east coast of Florida.
- William B. Kirkham. Collection of marine invertebrates.
- Dudley Lewis. Skin of a rattlesnake (*Crotalus horridus*) from Milford,
Penn.
- Robert O. Morris. Whip-poor-will (*Antrostomus vociferus*). Night-hawk
(*Chordeiles virginianus*). Mallard (*Anas boschas*) from Wilbraham,
Mass. Gadwall (*Anas strepera*) from Glastonbury, Conn.
- Miss Anna M. Stebbins. Hornet's nest (*Vespa sp.*).
- Robert M. Wallace. A collection of 292 birds.

DEPARTMENT OF HISTORY OF MANKIND.

- Nathan D. Bill. Collection of 198 Indian baskets, one ceremonial piece and
a ceremonial rug.
- William B. Kirkham. Two French medals, and a collection of spear points
from Moosehead Lake, Maine.
- William C. Pease, Longmeadow, Mass. Pestle from Longmeadow.
- Mrs. Clara Howard Robinson. Spinning wheel.

MISCELLANEOUS GIFTS.

- Emily Belle Adams. Six dollars for the purchase of birds.

Meetings of Scientific Societies held in the Science Museum.

Springfield Botanical Society.

Subjects, 1904.

- May 6. Parasitical fungi.
13. Algae.
20. Analysis of mosses.
27. How cold affects plants.
- June 3. Ecological regions—dry.
10. Structural adaptations of plants.
17. Analysis of mosses.
24. Orchids.
- July 1. Ecological regions—wet.
15. Review of ferns.
22. Huckleberries and blueberries.
29. Trees of Forest Park.
- Aug. 5. Ecological regions—in or near swamps.
12. Movement of plants.
19. Analysis of mosses.
26. Orchids.
- Sept. 2. Some useful plants of the buttercup family.
9. Pollination.
16. Carnivorous plants.
23. Analysis of mosses.
30. Slime moulds.
- Oct. 7. Disposition of the surplus in the plant world.
14. Conditions affecting the life of seeds.
21. Chinese ferns.
28. Relation of plants to light.
- Nov. 19. Lichens.
- Dec. 17. The winter aspect of trees.
- 1905.
- Jan. 21. The Arctic flora.
Feb. 18. Analysis of mosses.
Mar. 18. Ferns—their haunts and how to know them.
Apr. 14. Annual meeting.
21. The problem of shade trees.
28. Procumbent stems.
- May 5. The herbarium.

The Zoological Club, Springfield, Massachusetts.

Subjects of Meetings.

1904.

- May 18. Personal recollections of Solomon Stebbins.
Insects as parasites and animal parasites of insects.
- Oct. 5. Reviews of zoological literature.
- Oct. 19. The work of the U. S. Fish Commission.
- Nov. 16. Reviews of zoological literature.
- Dec. 7. Insect pests and their control.

1905.

- Jan. 18. Water organisms.
- Feb. 15. Report of the meetings of the scientific societies at Philadelphia, Dec.
26-31, 1904.
- Mar. 15. Recent publications concerning gall insects.

Scientific Societies in Springfield.

Springfield Botanical Society.

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MISS FANNIE A. STEBBINS, Acting President.
MRS. S. O. ALLEN, Vice-President.
MRS. F. I. W. BURNHAM, Corresponding Secretary.
MISS ELIZABETH BOOTH, Recording Secretary.
MRS. K. N. WASHBURN, Treasurer.
MISS CHLOE ST. JOHN, Auditor.
MISS E. J. STEELE, Chairman Executive Committee.
REV. HERBERT P. WOODIN, Chairman Field Meeting Committee.

Springfield Geological Club.

ROMAN A. CRANE, President.
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EX. COM., A. B. KIMBALL, WALTER G. WHITMAN.

Springfield Zoological Club.

CHARLES B. WILSON, President.
ROMAN A. CRANE, Vice-President.
FRANK E. WATSON, Secretary and Treasurer.
EX. COM., DR. GEORGE DIMMOCK, MISS FANNIE A. STEBBINS.



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14 SEP 1914

REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASS., MAY
NINETEEN HUNDRED AND SEVEN

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING
MAY FIRST, NINETEEN HUNDRED AND SEVEN



LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

Museum of Natural History.

In the Science Building.

Hours of Opening.

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Curator of the Museum of Natural History.

WILLIAM ORR.

Assistant Curator.

GRACE L. PETTIS.

Museum of Natural History.

Report of the Curator.

To the Directors and Members of the City Library Association:—

The thirteenth annual report of the Museum of Natural History is hereby respectfully submitted.

Popular Interest in the Collections.

An index of the hold the museum has on the community is found in the increase in the number of questions put to the attendants. These queries relate to the specimens on exhibition and to various points in natural science. People are more and more coming to the building with definite purpose and in the attitude of serious study. Such a habit of mind shows that the museum is succeeding in its work of general education. The importance of this side of its activity must always be kept in mind. Where the attention of officials is centered exclusively on the collections, their excellence of material, mounting, and installation—there may go a total absence of any vital influence on the popular mind. While much has been done by the museum to promote a general interest in the natural history of the Connecticut Valley, the demands of routine details on those in charge make it impossible to carry out certain promising plans now in vogue and tested in other institutions of this kind. In the Brooklyn Museum of Arts and Sciences, the entire time of a young woman is taken up in giving informal talks to classes and groups of visitors. At Boston, much is made of excursions to points of interest under the charge of competent conductors. Other museums maintain children's rooms and classes with excellent results.

Some of the Activities.

Meanwhile, with the resources at command, progress is being made. Helpful relations are being maintained and strengthened with the public schools and the various scientific societies of the city. It is a great advantage that the Museum of Natural History is conducted as part of the organization which includes the City Library

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and Art Museum. The coöperation of three such institutions makes for results impossible under separate management. It is especially desirable that there should be an increase in the use of the collections by school teachers and school children.

New Features of the Collections.

Another method of enlisting interest among visitors is the use of descriptive labels and monographs as guides to study. Progress has been made in this respect during the past year, and now many of the important objects are thus indicated. Illustrations of this feature may be seen in the printed descriptions of the petrified wood from Arizona; the column from the Giants' Causeway; the sandstone slab with fossil footprints; the relief maps of Vesuvius, Mont Blanc, and Mont Pelée; the series of corn products, and the realistic bird and animal groups. Much use is also made of photographs to show the actual appearance of objects in nature and the surroundings in which they occur. This device has been found to be especially helpful and suggestive in lending additional interest to the specimens of fruit and woods from tropical and sub-tropical countries. The Nathan D. Bill collection of Indian Baskets is now labeled in a thorough and unusually satisfactory manner so that this fascinating industry may be readily understood in its detail of process and results.

The Use of the Bulletin.

An instance of the value of the close relation between library and museum is found in the museum notes printed monthly in the Bulletin. Important additions to the collections are thus called to popular attention. During the year a series of articles descriptive of notable trees found in the city has been published in the Bulletin. The account describes the situation, appearance and size of the local tree and the geographical distribution of the species. References are given to Sargent's "Silva of North America," in the Catharine L. Howard Library. So much interest has been shown in these descriptions that they will be continued to include a large number of species. It is hoped also to combine the articles in a booklet that will make a valuable guide to Springfield's notable trees.

Special Collections and Exhibits.

For several years, attention has been paid to arranging material bearing on some particular phase of nature study. Advantage is taken of the changing phases of popular interest. Some time ago, when there was much discussion of mushrooms, an exhibit of edible and poisonous varieties was made. Throughout the year, the migrant birds for each current month are displayed on a table near the main entrance, and attract much attention besides stimulating the outdoor study of bird life. In like fashion, the flowers of this region are collected and exhibited with marked results in an increased attention to botanical study.

Much more might be done in the way of special exhibits if there were ample time and space at the disposal of the officials. Thus there could be assembled a collection of specimens showing the formation of coal—from the decaying vegetable matter in a stagnant pond, through peat, lignite, bituminous and anthracite coal. A collateral exhibit would contain various fossils found in connection with coal beds. Abundant material is on hand for such a collection.

There is also a wide field as yet untouched in the demonstration of the activities of plants and animals. Physiological Botany is especially rich in opportunity, while the life processes of insects can be shown with great vividness.

Work on Collections.

Attention has been given during the year to the material in the basement. This has now been rearranged and labeled in systematic manner. A special set of cabinets, twenty-three in number, have been made up for the use of schools from duplicates in the Booth collection. Each cabinet contains eighteen compartments with the following minerals: magnetite, massive calcite, calcite crystal, satin spar, Iceland spar, marble, shell marble, oölite, stalactite, stalagmite, calc marl, geode, quartz crystals, lithographic stone, massive limestone, coral, coquina; fossil shells, small and large. Each cabinet bears this inscription: "The Samuel Colton Booth School Collections. Gift of Miss Mary A. Booth." These cabinets have now been placed in the grammar schools, where they will be an aid in the study of mineralogy. There is under consideration the extension of the botanical section by adding cases wherein can be shown the several parts of important trees,

as wood, two sections; leaf, seed, photograph of foliage and trunk, and a map indicating the distribution of the species.

Your attention is called to the excellent historical material now in possession of the museum, or loaned to the institution, for which no proper place can be found. If these interesting relics were on exhibition, many valuable memorials of early New England would undoubtedly be added to those now on hand. For people who now keep these in attics would be likely to think of giving them where they could be preserved. As it is each year witnesses a loss of colonial and revolutionary relics.

Additions to Collections.

Mr. Robert O. Morris has rendered valuable service to the Museum and the cause of local zoölogy by his gift of mammals of this region. Mr. Morris has secured the expert assistance of William Dearden of this city in the collection and preparation of the specimens. Many of the varieties are rare and some are likely to be soon extinct. Among the more important specimens of this collection are the water shrew, with no previous record for this region; the long tailed shrew—the smallest North American mammal, a frequenter of cool sphagnum bogs; the black rat, once common but now often displaced by the Norwegian or wharf rat; the red back mouse, and the northern pine mouse, taken where the North branch enters Watershop pond. There is one previous record of the latter, for Springfield.

The museum has received from J. T. Bowne two alligator skeletons, two wild boar tusks, and two wild hog skulls from Lake Monroe near Enterprise on St. John's River, Florida. Mr. William E. Parsons has given a crystal of garnet from Colorado. Acknowledgment is also made of the gift of a collection of seeds, eggs, and reptiles from Dr. George Dimmock. A complete list of accessions is given in the appendix to this report.

Lectures.

Miss Emily B. Adams has given a course of three lectures on Birds.

Classes.

Pupils and teachers of our public schools have visited the museum as indicated by the following table:—

CITY LIBRARY ASSOCIATION.

Classes from city schools,.....	39
Classes from out of city schools,.....	28
	<hr/>
Total number of classes,.....	67
Pupils in city classes,.....	588
Pupils from out of city classes,.....	485
	<hr/>
Total number of pupils,.....	1,073

These figures would indicate that neighboring towns appreciate the opportunities offered by the collections better than do our own schools.

Attendance.

Largest number of visitors on any one day, Feb. 17, 1907,	242
Smallest number of visitors on any one day, Dec. 10, 1906,	3
Estimated yearly attendance,.....	34,255

Scientific Societies.

The Botanical Society, now completing a period of 30 years of activity, has continued to maintain a series of interesting and valuable meetings throughout the year. A Botanical class has made good use of the facilities afforded for study by the collections and the reference books of the Catharine L. Howard Library. It is to be hoped that the good example set by the students of plant life may stimulate our local zoölogists and geologists to a worthy emulation.

Research Work.

Within recent years the museum has gained recognition among scientists, not only for the excellence of the collections but also as a place where original investigation is successfully undertaken. The Bulletin No. 1, Early Stages of Carabidae, by Dr. George Dimmock and Frederick Knab, did much to win reputation for this institution. Another valuable piece of work has been the collection of data regarding the time of arrival of birds. Reports on the first appearance of nearly seventy-five species have now been made for seven years.

As ten years constitute the term requisite for generalization, it will soon be possible to frame some law of arrival. The Bird Book published each year is a distinct aid to study and helps in the securing of data. In like manner a careful record is kept of reports on the date of flowering of various plants, and in time conclusions can be drawn from this material.

While the main purpose of the museum is to interest and instruct the community, it is highly important that relations should be maintained with active scientific bodies. Such association serves as a stimulus and inspiration. And there is abundant opportunity for research work upon our local natural history. The remarkable collection of Indian relics found in Wilbraham a few years ago and now in the possession of the museum might well be made the subject of a monograph. In the geological formation of the valley, such as the terraces of the Westfield river and the lava flows of Holyoke and Tom, there is a rich field for the student. Both means and workers for these undertakings will surely be provided in the near future as one of the results of the influence of the museum and of the confidence it has won in the minds of the people.

WILLIAM ORR,
Curator.

May 1, 1907.

Gifts to the Museum of Natural History.

MAY, 1906—MAY, 1907.

DEPARTMENT OF GEOLOGY.

- Mrs. P. E. Brown, Somers, Conn. Quartz crystals, Somers, Conn.
H. G. Denver. Copper ore from canal bank between West Suffield and Windsor Locks, Conn.
E. S. Morse. Three conglomerate pebbles.
W. O. Parmenter. Water-worn rock, Maplerow Farm, Hawley.
William E. Parsons. Crystal of garnet, Colorado.

DEPARTMENT OF ZOOLOGY.

- Miss Emily B. Adams. Olive-backed thrush (*Hylocichla ustulatus swainsonii*), Springfield.
Nathan D. Bill. Skulls of alligator (*Alligator mississippiensis*) and loggerhead turtle (*Thalassochelys caretta*).
J. T. Bowne. Two alligator skeletons; two wild boar tusks; and two wild hog skulls, Lake Monroe, near Enterprise, on St. John's River, Fla.
J. H. Carmichael, M.D. Snake skin.
William Dearden. Hermit thrush (*Hylocichla aonalaschkae pallasii*), Springfield.
Leo De Montigny. Royal moth (*Citheronia regalis*), Springfield.
Dwight Holland. Red-tailed hawk, albino (*Buteo borealis*), West Ware.
Miss Jennie Livermore. Trap-door spider and nest, Pasadena, California.
Robert O. Morris.
Rough-winged swallow (*Stelgidopteryx serripennis*), Longmeadow.
Towhee (*Pipilo erythrophthalmus*), Springfield.
Phoebe (*Sayornis phoebe*), Springfield.
Chimney swift (*Chaetura pelagica*), Springfield.
Chipmunk (*Tamias striatus cysteri*), Wilbraham.
Hudson Bay jumping mouse (*Zapus hudsonius*), Longmeadow.
Southern flying squirrel (*Sciuropterus volans*), Tolland.
Gray fox (*Urocyon cinereoargenteus*), Tolland.
Wild cat (*Lynx rufus*), Tolland.
Pine mouse (*Microtus pinetorum scalopsoides*), Springfield.
Long-tailed shrew (*Sorex personatus*), Springfield.
Red-backed mouse (*Evotomys gapperi ochraceus*), Springfield.
For Miss Emeline Parker. Collection of shells.
Roderick Pirnie. Skeleton of skate.

DEPARTMENT OF BOTANY.

- Luman Andrews, Southington, Conn. 117 herbarium specimens (foreign).
Lewis J. Ball. Bunch of cocoanuts.
Frederick Knab. Collection of seeds and seed pods.
George S. Lewis. Fibers and fabrics. Photographs of wild corn.
Hirsch Nuger. Section of wood.

DEPARTMENT OF HISTORY OF MANKIND.

- Nathan D. Bill. Fiber rain coat and hats, South Sea Islands.
 Miss Mary A. Booth. Homespun mittens worn by David Booth previous to 1827. Piece of homespun woolen. Wool from sheep raised on the S. C. Booth estate in Longmeadow.
 Mrs. Mary Chapman. Indian pestle from Washington state.
 Miss Charlotte Coomes. Sandstone mortar found in Longmeadow, given in memory of John W. Dickinson.
 H. G. Denver. Pens from city hall fire.
 Mrs. A. S. Leonard, Hampden, for Maria P. Sheldon. Flax wheel.
 Arthur B. West. Check on Chicopee bank of Springfield, dated 7th February, 1848, and signed by John Brown.

MISCELLANEOUS GIFTS.

- George Dimmock, Ph.D. Collection of seeds, eggs, reptiles.

Since the list issued in the last Report publications have been received from the following sources. Most of the societies, institutions and museums mentioned below have been added to the exchange list of the Museum.

NORTH AMERICA—UNITED STATES.

- Brooklyn institute of arts and sciences. Brooklyn, N. Y.
 Charleston museum. Charleston, S. C.
 Field Columbian museum. Chicago, Ill.
 Hatch experiment station. Amherst, Mass.
 Missouri botanical gardens. St. Louis, Mo.
 Museum of comparative zoölogy. Cambridge, Mass.
 University of Michigan. Ann Arbor, Mich.

CANADA.

- Geological survey of Canada. Ottawa.

SOUTH AMERICA—ARGENTINE REPUBLIC.

- Museo de la Plata. La Plata.

EUROPE—GERMANY.

- Naturforschende gesellschaft in Danzig.
 Verein fuer naturwissenschaft in Braunschweig.

GREAT BRITAIN.

- Natural history society of Northumberland. Newcastle-upon-Tyne.
 Royal museum and libraries. Salford.
 Ruskin museum. Sheffield.
 Southport society of natural science.

RUSSIA.

- Société impériale des naturalistes de Moscou.

SWEDEN.

Geological institution of the university. Upsala.

Henriksen, G. Sundry geological problems. Christiania. 1906.

OCEANICA—NEW ZEALAND.

Colonial museum of New Zealand. Wellington.

PHILIPPINE ISLANDS.

Philippine museum. Manila.

Birds Seen in Springfield.

	1901	1902	1903	1904	1905	1906	1907
Cedar Waxwing.....			Mar. 3	Mar. 12	Mar. 26	Mar. 25	Mar. 31
Song Sparrow.....	Mar. 8	Mar. 8	" 3	" 12	" 9	Feb. 26	" 16
Black Duck.....		" 8	" 7	" 20		Mar. 13	" 22
Sharp-shinned Hawk.....			" 11			Apr. 28	" 18
Bronzed Grackle.....	" 13	Feb. 28	" 3	" 20	" 18	Feb. 26	" 17
Bluebird.....	" 14	" 27	Feb. 23	" 11	" 12	" 23	" 16
Marsh Hawk.....		Mar. 15	Mar. 7	" 19	" 23	Mar. 13	" 16
Meadowlark.....			" 15	Apr. 4	" 26	" 10	" 18
Northern Flicker.....			" 15	Mar. 28	" 31	Apr. 14	" 22
Red-winged Blackbird.....	" 16	" 8	" 3	" 19	" 18	Mar. 11	" 18
Canada Goose.....	" 16	" 12	" 23	" 20	" 24	Apr. 4	Apr. 13
American Robin.....	" 17	" 1	" 3	" 14	" 14	Feb. 24	Mar. 16
Red-shouldered Hawk.....		" 14	" 4	" 26	" 18	" 20	" 22
Fox Sparrow.....	" 22	" 1	" 14	" 26	" 20	" 26	" 17
Phoebe.....	" 23	" 15	" 14	" 25	" 23	Apr. 5	" 16
Hooded Merganser.....					" 24	" 4	" 22
Purple Finch.....	" 31	" 31	" 17	Apr. 9	" 19	" 4	" 15
American Bittern.....		Apr. 5	" 28	May 7			May 3
American Woodcock.....		" 5	" 28	Apr. 30		" 3	Mar. 24
Cowbird.....	Apr. 6	" 5	" 28	" 9	Apr. 1	" 7	" 29
Black-crowned Night Heron.....		" 6	" 28	Mar. 27	Mar. 28	" 23	Apr. 6
Wood Duck.....		" 6	" 28	" 24		" 12	
Great Blue Heron.....	" 8	" 4	Apr. 6		Apr. 9	" 7	May 3
Swamp Sparrow.....		" 4			" 8	" 7	May 7
Rusty Blackbird.....	" 11	Mar. 31		Apr. 2	Mar. 23	" 4	Mar. 23
Tree Swallow.....	" 11	Apr. 11	Mar. 14	" 5	" 26	" 7	" 29
Cooper's Hawk.....		" 12	" 7	" 17	Apr. 8	" 12	Apr. 19
American Osprey.....	" 12	" 5	" 26	Mar 11	Mar. 28	Mar. 22	" 11
Mourning Dove.....	" 12	" 5	" 26	Mar 11	Mar. 28	Mar. 22	" 7
Pine Warbler.....	" 13	" 14	Apr. 2	Apr. 9	Apr. 1	Apr. 10	Mar. 30
Vesper Sparrow.....	" 13	" 5	Mar. 24	" 10	" 1	" 4	" 28
Chipping Sparrow.....	" 17	" 12	Apr. 2	" 15	" 1	" 15	" 30
Field Sparrow.....	" 17	" 5	Mar. 28	" 2	" 1	" 14	Apr. 26
Savanna Sparrow.....	" 19	" 14	Apr. 15	" 16	" 9	" 7	" 27
Yellow Palm Warbler.....	" 19	" 14	" 17	" 10	" 8	" 14	" 13
Belted Kingfisher.....	" 19	Mar. 15	Mar. 14	" 4	Mar. 26	Mar. 31	Mar. 22
White-throated Sparrow.....		Apr. 21	Apr. 20	" 19	Apr. 17	Apr. 16	Apr. 19
Pectoral Sandpiper.....						" 21	" 21
Yellow-bellied Sapsucker.....		" 21	" 22	" 17	" 7	" 10	" 10
Pied-billed Grebe.....				" 23		" 20	Mar. 14
Least Flycatcher.....	" 27	" 22	May 1	May 4	May 3	May 3	May 9
Barn Swallow.....		" 28	Apr. 22	Apr. 30	Apr. 22	Apr. 14	" 2
Hermit Thrush.....	" 30	" 16	" 2	" 9	" 7	" 14	Apr. 2
Myrtle Warbler.....	" 30	" 19	" 30	" 15	" 20	" 21	" 27
Purple Martin.....	" 30	" 23	May 14	" 24	" 13	" 27	May 7
Catbird.....		" 30	" 7	May 5	May 3	May 3	" 7
Blue-headed Vireo.....			Apr. 30	Apr. 30	" 3	Apr. 30	Apr. 27
Greater Yellow-legs.....						" 30	" 30
Ruby-crowned Kinglet.....	May 2	" 16	" 12	" 15	Apr. 12	" 14	" 4
Spotted Sandpiper.....	May 2	" 21	May 9	May 5	" 25	" 30	May 7
Black-throated Green Warbler.....	" 2	May 1	Apr. 26	Apr. 30	" 28	" 30	Apr. 27
Northern Parula Warbler.....	" 2	" 3	" 29	May 6	May 3	May 2	May 14
Kingbird.....		" 2	May 1	" 5	" 1	" 4	" 2
Black and White Warbler.....	" 3	Apr. 29	Apr. 30	Apr. 30	Apr. 25	Apr. 30	Apr. 27
Wood Thrush.....		May 3	May 8	May 5	May 3	May 3	May 14
Green Heron.....						" 4	" 15
Louisiana Water Thrush.....					" 3	" 13	
Chimney Swift.....	" 5	Apr. 23	Apr. 22	Apr. 23	Apr. 20	Apr. 22	" 1
House Wren.....	" 6	May 5	May 8	May 8			" 12

Meetings of Scientific Societies Held in the Science Museum.

SUBJECT OF MEETINGS.

Springfield Botanical Society.

1906.

- May 4. Historical trees. Miss Mary E. Trueblood.
May 11. Coloration of flowers. Mrs. Maria L. Owen.
May 18. Class work.
May 25. Analysis of cupuliferae.
June 1. Value of the cupuliferae. Miss Mary F. Paine.
June 9. The juglandaceae. Mrs. F. I. W. Burnham.
June 15. Laticiferous plants. Rev. John L. Kilbon.
June 16. Field day at Mt. Toby.
June 22. The Amherst experiment station. Dr. George E. Stone.
June 29. Botanical nomenclature. Miss Elizabeth Booth.
July 6. The White mountains. Rev. Herbert Woodin.
July 13. Class work on fruits.
July 20. Forestry abroad and at home. Mrs. Newton Morgan.
July 27. Analysis of labiatae. Mrs. C. F. Leonard.
July 28. Field day at Tatham.
July 31. Field day at Smith college.
Aug. 3. Starch. Frank D. Bishop.
Aug. 7. Field day at Southwick.
Aug. 10. Value of the labiatae. Mrs. J. M. Kennedy.
Aug. 17. Molds. Harry Piper.
Aug. 24. Trip through the Yosemite. Mrs. E. J. Lazelle.
Aug. 31. Class work.
Sept. 7. Flora of Indiana. Prof. Frank E. Watson.
Sept. 14. Vegetable oils. Miss Josephine E. Strong.
Sept. 21. Burbank's work. Miss W. S. Sanborn.
Sept. 22. Field day at Mountain park.
Sept. 28. The arrangement of leaves. Miss Chloe St. John.
Sept. 29. Field day at Mt. Nonotuck.
Oct. 5. Value of the leguminosae. Miss Annie E. Smith.
Oct. 12. Experiments in physiological botany. W. S. C. Russell.
Oct. 19. Bacteria in relation to agriculture. A. Vincent Osmun.
Oct. 26. A summer pilgrimage to an ancient and modern laboratory. Dr. Henrietta Hooker.
Oct. 27. Field day to Lithia spring.
Nov. 10. Forestry. Dr. George E. Stone.
Dec. 8. Work at Smith college. Edward L. Canning.

1907.

- Jan. 12. Mushroom culture. Asa S. Kinney.
Feb. 9. Forestry at Forest park. J. Alden Davis.
March 9. Sand dunes. Miss F. G. Smith.
April 19. Annual meeting.
April 26. Orchids. Mrs. F. I. W. Burnham.

The Springfield Zoological Club.

1906.

- May 16. Circulatory and digestive systems. Dr. Ralph B. Ober.
May 23. Some facts relating to bacteria. Dr. Joel I. Butler.
June 13. Some facts relating to bacteria (continued). Dr. Joel I. Butler.

Scientific Societies in Springfield.

Springfield Botanical Society.

MRS. MARIA L. OWEN, Honorary President.
MISS FANNIE A. STEBBINS, Acting President.
MRS. S. O. ALLEN, Vice-President.
MRS. F. I. W. BURNHAM, Corresponding Secretary.
MISS ELIZABETH BOOTH, Recording Secretary.
MR. FRANK D. BISHOP, Treasurer.
MISS CHLOE ST. JOHN, Auditor.
MISS E. J. STEELE, Chairman Executive Committee.
MISS WINIFRED S. SANBORN, Chairman Field Meeting Committee.

Springfield Geological Club.

ROMAN A. CRANE, President.
ASHTON E. HEMPHILL, Vice-President.
MISS ELIZABETH ARNOLD, Secretary and Treasurer.
Ex. Com., WALTER G. WHITMAN. •

Springfield Zoological Club.

CHARLES B. WILSON, President.
ROMAN A. CRANE, Vice-President.
MISS GRACE L. PETTIS, Secretary and Treasurer.
Ex. Com., DR. GEORGE DIMMOCK, MISS FANNIE A. STEBBINS.



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LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASS., MAY
NINETEEN HUNDRED AND EIGHT

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING
MAY FIRST, NINETEEN HUNDRED AND EIGHT



LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

Museum of Natural History.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year, except July 4, Thanksgiving Day, and December 25, 2 to 6 from March 21 to September 21; 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open every day in the year, except July 4, Thanksgiving Day, and December 25, 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

Curator of the Museum of Natural History.

WILLIAM ORR.

Assistant Curator.

GRACE L. PETTIS.

Museum of Natural History.

Report of the Curator.

To the Directors and Members of the City Library Association:—

The fourteenth annual report of the Museum of Natural History is hereby respectfully submitted.

Administration.

In the year covered by this report, May, 1907, to May, 1908, opportunity has been given for work on a systematic catalogue of the collections. The general scheme has been outlined and a good beginning made. The card catalogue of the birds is nearly completed. From this one may easily find the total specimens of each class received by the museum, those which are still kept in the collections and the disposition made of duplicates. Accessions of the past year have been given in each case a serial number and immediately catalogued, while definite progress has been made in listing material received in previous years. Delay in the latter work has been unavoidable because the early records of the museum are in many cases incomplete. Several years will be required to complete the catalogue. It will, when finished, include:—

1. A chronological list of accessions in the order of museum numbers, to which will be added all notes, newspaper clippings, and information of value and interest in connection with the specimens.

2. A card catalogue of donors with cross reference to the museum numbers in above list.

3. A systematic card catalogue, in which mention will be found of every specimen, dissection, or preparation of any animal or plant in the museum under the name of the animal or the plant, and in which the curiosities will be classified under the respective countries or historical periods.

Such a systematic catalogue will make easily available for study museum material not in the exhibition cases.

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Disposal of Duplicate Birds.

Through the generous coöperation of Mr. Gurdon Bill, the museum has been enabled to sell some seventy specimens of birds in a fine collection recently purchased. These specimens were duplicates and not needed in this museum. Mr. Bill has bought these duplicates and presented them to the Bill Memorial Library of Groton, Conn., which is a gift to the people of that town from Mr. Frederick Bill. The birds sent from the museum include a number of interesting and rare specimens and the collection will prove an incentive to bird study among the people of Groton. The money received will be used in completing the collection already in our museum.

Publications.

The Museum of Natural History has published for the Springfield Botanical Society the thirtieth annual report of that organization. This pamphlet contains the list of officers and active members, constitution and by-laws, an interesting sketch of the early history of the Botanical Society, and a program of the meetings for 1907.

A new edition of the "Manual on Bird Migration" has been issued with complete data of time of arrivals of spring migrants for the years 1901 to 1907 inclusive, and with space for recording arrivals for 1908, 1909, and 1910. There is much interest shown in this little book and it has done valuable service in stimulating and making intelligent the study of the habits of local birds.

The museum has continued to give in the Bulletin descriptions of important species of trees found in this city. Sixteen species in all have been described and the Bulletin for the current month has a list of reference books to be consulted by those interested in tree study. Plans are now made for the assembling of these articles in a manual or guide on local trees. A list of the trees described is given in the appendix of this report.

Lectures.

Professor Lewis B. Allyn, instructor in the State Normal School at Westfield, gave his lecture "On the Adulteration of Food" in the Art Museum on the evening of January 31. Professor Allyn showed in a direct, practical way the importance of safeguarding our food supply against injurious adulteration.

It should also be noted that all the lectures of the Botanical Society

are open to the public. A list of those for the current year and for next year is given in the appendix to this report.

Attendance.

The figures for regular visitors to the museum collections are as follows:—

Largest number of visitors on any one day, Sunday, May 8, 1907.....	452
Smallest number of visitors on any one day, October 7, 1907.....	12
Estimated yearly attendance.....	30,258

Classes.

The number of classes brought by teachers for special study is as follows:—

From city schools.....	46
From schools outside city.....	24
<hr/>	
Total number of classes.....	70
Pupils in city classes.....	749
Pupils from outside city.....	410
<hr/>	
Total number of pupils.....	1,159

The schools of Chicopee have shown an unusual interest in the collections. It is gratifying to note that the regular attendance includes many children who come for special study of various phases of natural history.

Additions to the Collections.

One of the best evidences of the popular interest in the museum is shown by the fact that the entire plant and most of the collections have been the result of gifts. The building was made possible by a subscription from over one hundred citizens. Most of the specimens were given directly by collectors and the remainder purchased by funds secured from lectures or from friends.

The National Museum at Washington has given important collections. During the year just closing the institution has been enriched by two notable gifts from sources outside of Springfield.

The H. W. Seton-Karr Collection.

Through the good offices of Mr. J. T. Bowne of the Young Men's Christian Association Training School, Mr. H. W. Seton-Karr, a distinguished English archeologist, became interested in the museum and was led by that interest to give a valuable series of paleolithic and neolithic stone implements from India, Egypt, France, and Belgium. The account of this collection will show its value and interest in connection with the rich material the museum has in illustration of the Indian life of this valley, and the aboriginal basket and pottery industries of the south and west. The department of archeology has now become one of the most important and complete among our collections. A detailed account of the Seton-Karr gifts has been prepared by Mr. J. T. Bowne and is given herewith:—

“While the section of archeology has been rich in stone objects from the Connecticut valley and has had a fairly representative collection from other parts of North America, the gift of Mr. Seton-Karr from Europe, Asia, and Africa, with the D. L. Harris Scandinavian relics, is especially valuable for the comparative study of the works of primitive man in other parts of the earth. The Seton-Karr collections contain some of the very earliest known works of man dating many thousand years before the dawn of history.”

This summary of the gifts of Mr. Seton-Karr will show in some measure the range and value of the collection:—

- 4 neolithic implements from St. Symphorien, Belgium.
- 2 fragments of a polished axe.
- 1 neolithic implement. Veaux, St. Symphorien, Belgium.
- 5 neolithic implements. Amiens, Somme, France.
- 15 neolithic implements. Spiennes, Belgium.
- 14 neolithic implements. Flènu, Hainault, Belgium.
- 11 perfect arrowheads from the desert of the Fayum oasis, Egypt.
 - 1 large knife; sixth dynasty. Thebes, Egypt.
 - 3 paleoliths. Desert above Thebes, Egypt.
 - 3 small implements. Nerbudda valley, Central India.
 - 1 axe. Bellary, Madras, India.
 - 3 polished neolithic implements. Banda, United Provinces, India.
- 44 paleolithic implements. Pennaar valley, Madras, India.
- 4 scrapers. Argentina, South America.

(See plates.)

This collection will be placed in one case with this general label:—

PREHISTORIC STONE IMPLEMENTS
Presented (and largely found) by
Heywood Walter Seton-Karr
of the
British Military Service in Egypt
September, 1907.

Mr. Bowne adds to his account of the Seton-Karr collection this plea: "We still need a small series of the prehistoric stone implements of Britain and France, another of the ancient Lake Dwellers of Switzerland, and still another showing the work of the aborigines of Central and South America. It would be quite possible to get them for a moderate price from the duplicates of American and European museums if some of our friends would furnish the means.

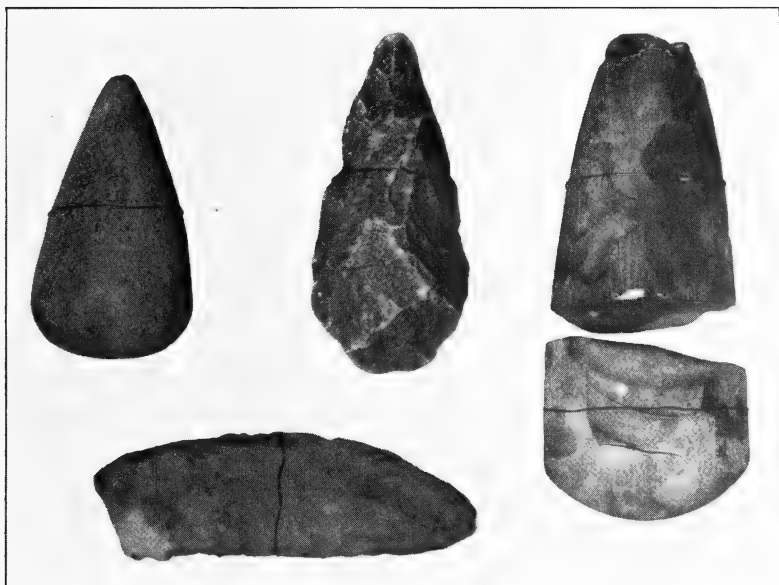
"Are there not some interesting ethnological objects in the homes of this vicinity which the owners would be glad to place where they would be carefully preserved and made of real educational value?"

The Clarence B. Moore Gift of Shell Implements from Florida.

Mr. Bowne has also secured an important addition to the department of archeology in a collection he describes as follows: "A lot of shell implements from the southwest coast of Florida and the adjoining islands, together with the volumes of the reports of Mr. Moore's archeological investigations made to the Philadelphia Academy of Natural History, and which cover the work of the past decade. The implements given are fully described in his 'Antiquities of the Florida West Coast,' 'Miscellaneous Investigations in Florida,' and 'Notes on the Ten Thousand Islands' in the Catharine L. Howard Library."

South Dakota, Wyoming, and Nebraska Fossils.

Professor F. B. Loomis of the department of biology in Amherst College has given the museum a notable collection of fossils illustrating the early mammalian life of this continent. Among the forms represented are remains of two animals, the Eohippus and the Mesohippus, progenitors of the horse of to-day. There are also specimens of fossils of early monkey forms and of the ancestors of the antelope of the western plains. Other species represented are the rhinoceros, hippopotamus, dog, tortoise, and camel. These remains are mostly of



NEOLITHIC AXE FROM BANDA, INDIA.
PALEOLITHIC IMPLEMENT FROM PENNAAR VALLEY, INDIA.
FRAGMENTS OF A POLISHED AXE FROM ST. SYMPHORIEN, BELGIUM.
KNIFE FROM THEBES.
Given by MR. H. W. SETON-KARR.



ARROWHEADS FROM THE DESERT OF THE FAYUM OASIS, EGYPT.
Given by MR. H. W. SETON-KARR.

the Miocene period. Professor Loomis has also given over one hundred flint chippings and partly completed implements from an Indian workshop of the pre-Sioux age.

The museum also contributed towards Professor Loomis's expedition of last year, and he secured for the museum a number of fine Miocene fossils from Wyoming and Nebraska representing parts of the following vertebrates: *Dicerotherium nebraskensis*, D. Schifi, *Merychys minimus*, *Stenomylus*, n. s., and a large number of minute remains of vertebrates found on an ant hill in Wyoming; where they had been gathered by the ants. Among the especially interesting specimens in the Loomis collection is a mount of an as yet undescribed species of *Stenomylus*, that shows the actual condition in which these fossils occur.

Robert O. Morris Collection of Local Mammals.

Under the direction of Mr. Morris, Mr. Dearden has made a careful search of Mt. Greylock and other localities and as a result several valuable specimens are secured. Especial mention should be given to the big-tailed shrew found in Tolland and the first specimen of the kind ever taken in Massachusetts. Another addition is the woodland jumping mouse (*Napaeozapus insignis*), the prettiest and most beautifully marked of the mice. The museum specimen came from Tolland. Heretofore the only Massachusetts station for this animal was Mt. Greylock.

The George S. Lewis, Jr., Collections.

These have been enriched by additions of fibers and grasses and materials made from these, such as straw braids. A series of fancy ginghams of both foreign and domestic weave has also been given.

A noteworthy specimen of a cross section of Mexican mahogany has also been added.

The Catharine L. Howard Library.

The annual meeting of the Catharine L. Howard Library Association was held in the museum February 24, 1908. Many former pupils and friends were present to greet Miss Sophia Howard. The following list of additions to the library will show how valuable it is as an aid to the study of the collections:—

Botanical Gazette.

Hartog. Protozoa, Porifera, Coelenterata.

Sargent, Charles. Trees and shrubs, vol. 2, pt. 1.

- Davenport, G. E. Notes on Botrychium simplex.
Allen, Dr. T. F. Characeae of America.
Allen, Dr. T. F. Characeae Americanae. 2 pts.
Boston Society of Natural History. Fauna of New England,
pts. 1-7.
Transactions of the American Entomological Society, vol. 33, no. 4.
N. Y. Botanical Gardens. North American flora, vol. 9, pts. 1
and 2.

The Museum an Agency for Popular Education.

Besides the routine duties involved in the care of specimens, much is done each year to direct and stimulate popular interest in natural history. A few illustrations will show something of this phase of museum work. Each year special exhibits of migrant birds and of flowering plants are made in their season. The list of bird arrivals is kept up to date and observers in this field are encouraged to send in reports. The same work is carried on in connection with the time of the appearance of flowers. Encouraging results are seen in the demand for the bulletins, the bird book, and other publications. While more might be done with greater resources, the museum is under present limited conditions doing much to enrich and elevate the thought of the community.

WILLIAM ORR, *Curator.*

Gifts to the Museum of Natural History.

MAY, 1907—MAY, 1908.

DEPARTMENT OF GEOLOGY.

Professor F. B. Loomis of Amherst College has given a collection of 47 fossils from South Dakota and Wyoming, and has secured with funds provided by the museum for that purpose a collection of Miocene vertebrate fossils from Nebraska and Wyoming.

Fred Merchant. Specimen of garnetiferous mica schist from Roxbury, Conn.

William Orr. Collection of 26 geological specimens from New Harbor, Maine. Collected in July, 1907.

W. T. Parker, M.D. Collection of minerals and rocks.

Harry Steel. Quartz crystals on mica schist.

DEPARTMENT OF ZOOLOGY.

Miss Emily B. Adams. Red-winged blackbird (*Agelaius phoeniceus*), Wilbraham.

William Dearden. Bluebird (*Sialia sialis*), Agawam.

Mrs. George C. Ewing, Enfield, Mass. Egg of Australian emeu (*Dromaeus novae-hollandiae*); and egg of ostrich (*Struthio camelus*) from Cape Town.

John A. Hall. Section of Puget Sound (Washington) fir tree pile showing borings of *Teredo navalis*.

Victor O. Huebner, Amsterdam, N. Y. Broad-necked prionus (*Prionus latifollis*) from Amsterdam, N. Y.

Professor F. B. Loomis, Amherst College. Collection of 43 sea shells.

Robert O. Morris.

Water shrew (*Sorex albibarbis*), Springfield.

Smoky shrew (*Sorex fumeus*), Mt. Greylock.

Big-tailed shrew (*Sorex macrurus*), Tolland.

Common long-tailed shrew (*Sorex personatus*), Mt. Greylock.

Northern pine mouse (*Microtus pinetorum scalopsoides*), Springfield.

Woodland jumping mouse, pair (*Napaeozapus insignis*), Tolland.

Canadian white-footed mouse (*Peromyscus canadensis*), Mt. Greylock.

Eastern varying hare (*Lepus americanus virginianus*), Southampton.

Red bat (*Lasiurus borealis*), Southampton.

Gray-cheeked thrush (*Hylocichla aliciae*), Springfield.

Chimney swift (*Chaetura pelagica*), Wilbraham.

Pine siskin (*Spinus pinus*), Springfield.

Tennessee warbler (*Helminthophila peregrina*), Springfield.

Nighthawk (*Chordeiles virginianus*), Springfield.

Alder flycatcher (*Empidonax traillii alnorum*), Hampden.

Miss Alice Southworth, Southern Pines, N. C. Collection of 104 bird skins, also nests and eggs.

H. B. Spencer, Mt. Tom. Copperhead snake (*Agkistrodon contortrix*), Mt. Tom.

Miss Eleanor A. Wade. Shell of oyster, Pine Orchard, Conn.

DEPARTMENT OF BOTANY.

Mrs. Fred M. Flagg has given for her father, Dexter Snow, his collection of foreign ferns.

- Lewis Corbin Grant. Collection of pressed flowers from the Yukon, Alaska.
 Mrs. M. C. Kirby, Longmeadow. Herbarium specimen of double flowered bell wort (*Uvularia perfoliata*).
 George S. Lewis, Jr. Collection of fibers, seeds, grasses, leaves, woods, and by-products; also botanical photographs.
 Mrs. Augusta R. Pinney. Collection of 17 herbarium specimens of evergreens.

DEPARTMENT OF HISTORY OF MANKIND.

- Mrs. W. A. Harris. Moqui Indian hat, Southern California.
 H. W. Seton-Karr, Lingfield Road, Wimbledon, London, England. Collection of 111 early stone implements as follows:—
 4 neolithic implements, St. Symphorien, Belgium.
 1 neolithic implement, Veaux, St. Symphorien, Belgium.
 5 neolithic implements, Amiens, Somme, France.
 15 neolithic implements, Spiennes, Belgium.
 14 neolithic implements, Flènu, Hainault, Belgium.
 3 neolithic axes (polished), Banda, United Provinces, India.
 44 paleolithic implements, Pennaar valley, Madras, India.
 3 paleoliths, desert above Thebes, Egypt.
 11 perfect arrowheads, desert of the Fayum oasis, Egypt.
 1 large knife, sixth dynasty, Thebes, Egypt.
 3 small implements, Nerbudda valley, Central India.
 1 axe, Bellary, Madras, India.
 4 scrapers, Argentina, South America.
 2 fragments of a polished axe.
 Mrs. Henry W. Larson. Swedish peasant's jacket.
 George S. Lewis, Jr. Collection of photographs of sections in the burned districts in San Francisco, Cal.; also illustrated industrial charts.
 Professor F. B. Loomis, Amherst College. Collection of flint chippings from Spanish Creek, Converse County, Wyoming.
 Daniel J. Marsh and Everett H. Barney. Hungarian fund certificate, and five dollar bill dated 1861 on Adams Bank of North Adams, Mass.
 Clarence B. Moore, Philadelphia, Penn. Collection of shell implements from mounds on the southwest coast of Florida and bordering islands; also books relating to such mounds.

MISCELLANEOUS GIFTS.

- Charles Pope. Melted electric light bulb from the San Francisco fire.
 Sarah M. Wilbur, M.D. Collection consisting of minerals, fossils, sea shells, coral and botanical specimens.

Since the lists issued in the last report, one society has been added to our list of exchange publications, viz.: Société Vaudoise des Sciences Naturelles, Lausanne, Switzerland.

TREES.

Articles giving descriptions and locations of trees in Springfield, printed in the City Library Bulletin, December, 1906, to May, 1908.

In various parts of the city there are trees which at different seasons are conspicuous because of seed pods, color, or certain peculiarities of appearance; also some rare species. Descriptions of, or specimens from, such trees are frequently brought to the museum by persons wishing to know more about them, and so much interest has been shown that the museum is publishing brief accounts of some of the more noticeable and rare species in the library bulletins.

Notes for these accounts are taken from Charles Sprague Sargent's "Silva of North America," a choice and extensively illustrated work of fourteen volumes in the Catharine L. Howard Library in the Science Building. This library is open to the public from 1 to 5 p. m. in winter, 2 to 6 p. m. in summer.

Trees described.—Three-thorned Acacia or Honey Locust (*Gleditschia triacanthos*) in the Bulletin for December, 1906. 2. Kentucky Coffee Tree (*Gymnocladus dioica*) in January, 1907. 3. Yellow Locust or False Acacia (*Robinia pseudacacia*) in February. 4. Sycamore or Buttonwood (*Platanus occidentalis*) in March. 5. Tulip Tree or Yellow Poplar (*Liriodendron tulipifera*) in April. 6. Catalpa in May. 7. Ginkgo in June. 8. Maples in August-September. 9. Hackberry or Sugarberry (*Celtis occidentalis*) in October. 10. Ailanthus, Tree-of-Heaven, or Chinese Sumac (*Ailanthus glandulosa*) in November. 11. Tupelo, Pepperidge, Sour Gum or Black Gum (*Nyssa sylvatica*) in December. 12. Yellow-wood, Virgilia (*Cladrastis lutea*) in January, 1908. 13. Pines: (a) White Pine (*Pinus strobus*), (b) Pitch Pine (*Pinus rigida*), (c) Red or Norway Pine (*Pinus resinosa*) in February. 14. Black Walnut (*Juglans nigra*) in March. 15. White Poplar or Silver-Leaf Poplar (*Populus alba*) in April. 16. Larch, Tamarack, Hackmatack, Juniper (*Larix Americana*) in May.

Springfield Botanical Society.

Program of Meetings, 1907-1908.

- 1907.
- April 19. Annual Meeting. Address. Henry Farquhar.
- April 26. Orchids. Mrs. F. I. W. Burnham.
- May 3. Tree study at Forest Park. J. A. Davis.
- May 10. Botany of Cultivated Plants. Professor F. W. Waugh.
- May 17. Class Work—Equisetaceae. Miss Fannie A. Stebbins.
- May 24. Trees and Shrubs of Massachusetts. Dr. G. E. Stone.
- May 25. Field Meeting. Wilbraham Mountains.
- May 31. Card Catalogue. Miss Elizabeth Booth.
- June 7. Burbank and his Work. Mrs. Maria L. Owen.
- June 14. Plant Secretions—Galls. Miss Fannie A. Stebbins.
- June 21. Current Botanical Literature. Miss E. J. Steele.
- June 28. Tree Lore. Rev. John L. Kilbon.
- June 29. Field Meeting. Lithia Spring.
- July 5. Making of New Species. Miss W. C. Sanborn.
- July 6. Mount Greylock Excursion.
- July 12. Insect Pests of New England. Roman A. Crane.
- July 19. Field Meeting. Rockrimmon.
- July 26. Field Meeting. Adams Ravine.
- Aug. 9. Tree Study at Forest Park. J. A. Davis.
- Aug. 16. Forest Reservations of the United States. Mrs. J. M. Kennedy.
- Aug. 23. Esthetic and Economic Value of Trees. Miss J. E. Strong.
- Aug. 30. Class Work—Leguminosae. Miss A. L. Sanderson.
- Sept. 6. Problem of Living Matter. Professor Frank E. Watson.
- Sept. 13. California Trip. Miss Fannie A. Stebbins.
- Sept. 14. Field Meeting. Pequot Lake.
- Sept. 20. Protoplasm. Frank D. Bishop.
- Sept. 27. Sea Weeds. Mrs. Helen Merrill.
- Oct. 4. Relation of the Plant to its Ancestors. Miss Chloe St. John.
- Oct. 11. Carnivorous Plants. Miss Nellie Peck.
- Oct. 12. Field Meeting. Amherst Notch.
- Oct. 18. Autumn Colors.
- Oct. 25. Forestry. United States Compared with Europe. Miss E. J. Steele.
- Nov. 15. Lecture. W. S. C. Russell, on Labrador.
- Dec. 7. Lecture. F. W. Rane. Work of State Forester.
- 1908.
- Jan. 17. Plants and Their Environment. Mrs. Augusta R. Pinney.
- Feb. 21. Diseases of Plants. Dr. G. E. Stone.
- March 20. Forestry. W. E. Sawin.
- April 17. Annual Meeting.
- April 24. Trees in Literature. Mrs. Jessie E. Allen.
- May 1. Canal Zone. Ashton H. Hemphill.

Scientific Societies in Springfield.

Springfield Botanical Society.

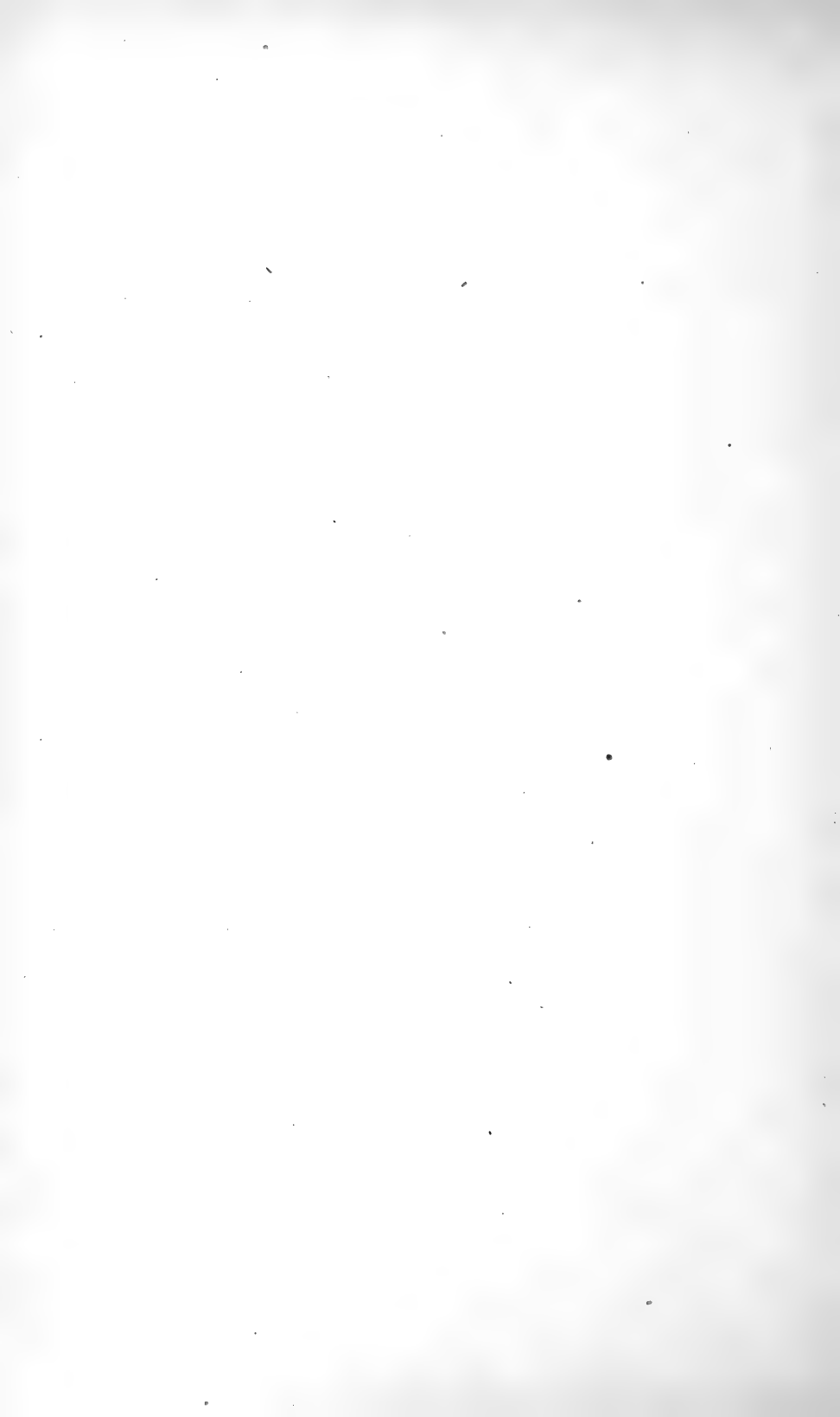
- MRS. MARIA L. OWEN, Honorary President.
MISS FANNIE A. STEBBINS, Acting President.
MRS. JESSIE E. ALLEN, Vice-President.
MRS. F. I. W. BURNHAM, Corresponding Secretary.
MISS ELIZABETH BOOTH, Recording Secretary.
ROMAN A. CRANE, Assistant Secretary.
MISS JOSEPHINE E. STRONG, Treasurer.
MISS NELLIE PECK, Auditor.
GEORGE DIMMOCK, Ph.D., Curator.
MISS E. J. STEELE, Chairman Executive Committee.
MISS WINIFRED S. SANBORN, Chairman Field Meeting Committee.
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Springfield Geological Club.

- ROMAN A. CRANE, President.
ASHTON E. HEMPHILL, Vice-President.
MISS ELIZABETH ARNOLD, Secretary and Treasurer.
Ex. Com., WALTER G. WHITMAN.
-

Springfield Zoological Club.

- WALTER H. CHAPIN, M.D., President.
ROMAN A. CRANE, Vice-President.
MISS MABEL R. WATSON, Secretary and Treasurer.
Ex. Com., GEORGE DIMMOCK, MISS FANNIE A. STEBBINS.





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1908/09

LIBRARY
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UNIVERSITY OF ILLINOIS
14 SEP 1914

REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASS., MAY
NINETEEN HUNDRED AND NINE

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING
MAY FIRST, NINETEEN HUNDRED AND NINE



LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

Museum of Natural History.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year, except July 4, Thanksgiving Day, and December 25, 2 to 6 from March 21 to September 21; 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open every day in the year, except July 4, Thanksgiving Day, and December 25, 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

Curator of the Museum of Natural History.

WILLIAM ORR.

Assistant Curator.

GRACE PETTIS JOHNSON.

Museum of Natural History.

Report of the Curator.

To the Directors and Members of The City Library Association:—

The fifteenth annual report of the Museum of Natural History is hereby respectfully submitted.

Publications.

Within the past few years it has been possible for the museum officials to make a beginning in the publication of handbooks and monographs on the results of various lines of research. The desire has been to take, as far as possible, subjects of local interest, with a view to making up a series of manuals serviceable to teachers in the schools and to students of the natural history of the Connecticut Valley.

The handbook on Bird Migration, which gives the dates of arrival of birds reported within ten miles of Springfield, has now the complete record since 1901 to 1907, and in a new edition soon to be issued the data for 1908 and 1909 will be entered. Such a tabulation has scientific value and also does much to stimulate bird study and give it definiteness. There is each year a good demand for the booklet, and the receipts from the sales make good the cost of publication.

Some ten years ago, the museum published a guide to local geology and physical geography called "Eight Geological Excursions." It was illustrated with photographs of interesting formations in the vicinity. An increased demand for this manual has sprung up for the past two years in connection with the introduction of courses in the upper grammar grades of our public schools in the study of the physical geography of Springfield and the surrounding country. Plans are under consideration for a new edition, enlarged and extended so as to cover the Connecticut Valley. It is felt that such an outline would be a great aid to progressive teachers in natural science in the schools of the three river counties and possess interest for the student of general geology.

A more ambitious and technical treatise was the monograph on "The Early Stages of the Carabidae," which embodied the results

of careful research by Dr. George Dimmock. This work was distributed among the principal museums and scientific societies of the world. By this means a large number of valuable publications were received in exchange and the local museum gained standing with scientific institutions in many countries.

The success of these first ventures in the line of publications has enlisted further interest from friends, and the sum of \$600 from the Horace Smith estate has been placed in the hands of the curator to meet the expense of two more monographs. One of these is now ready, and the museum will soon put into the hands of the printer the manuscript for a second bulletin. This bulletin, of which Miss Fannie A. Stebbins is author, will be entitled "Insect Galls of Springfield, Massachusetts, and Vicinity," and will be a bibliographical and descriptive catalogue of more than two hundred species of galls observed, collected and studied. Of these species over thirty are supposed to be undescribed, and will be given scientific names. The bulletin will be illustrated with 32 plates, containing 112 half-tone figures, all reproduced from photographs of galls. Especial attention has been paid to the galls themselves, rather than to the insects causing them, and these plant-deformities will be listed in the systematic order of the plants on which they occur, with an index in the systematic order of the gall-producing insects. Over 160 publications have been consulted in the preparation of this bulletin.

It is hoped that other gifts may make it possible for the museum to extend even further its activities in this important field of community service.

Administration.

The cataloguing of the contents of the museum on slips, mentioned in last year's report, has been continued. The mounted specimens of North American birds are all numbered and catalogued; nearly all the curiosities and historical relics, and about one-half the botanical specimens are already recorded on slips, while the new accessions are numbered and catalogued as received. The slips are duplicated as far as is necessary, and then classified much like the card catalogue of a progressive library, thus enabling one to find, without delay, what specimens the museum has to illustrate any special subject.

Attention has also been paid to keeping up the reports on bird arrivals, the date of the flowering of plants and to the display of special exhibits, and the placing of all possible facilities at the disposal of teachers and classes who visit the collections.

Lectures.

The museum in co-operation with the Springfield Volcanic Research Society arranged for two lectures by Prof. F. A. Perret, who was present at Vesuvius during the great eruption of 1906. Prof. Perret spoke May 20, 1908, to an audience which filled the Assembly Hall of the Central High School. His recital of the stirring events which he witnessed was followed with the greatest interest. His lantern slides taken from points of greatest vantage were of great clearness and beauty. Professor Perret gave another lecture on November 11th on Etna, Stromboli, and Vesuvius, and presented the results of his latest investigations. This lecture was in the Science Hall of the Central High School and was attended by an audience of nearly 200.

On April 18th, Mr. Ralph Hoffmann of Stockbridge spoke in the Art Building on the Protection of Birds. Much interest was aroused in the work of the Audubon Society.

A lecture on "Worthless Weeds" was given by George S. Lewis, Jr., to members of the International College and the Young Men's Christian Association Training School on November 22, 1908. The subject was illustrated by material from the collection of fibers in the museum.

The Botanical Society has maintained meetings regularly throughout the year. Talks on subjects connected with plant life are given at these meetings. The calendar for the society is given as an appendix to this report.

Attendance.

A gratifying attendance is to be noted particularly on Sundays, and the total for the year is estimated at 30,000.

Classes.

From city schools.....	75
From schools outside city.....	13
	88
Total	88
Total number of pupils in classes.....	1,034

The museum authorities earnestly invite teachers in the public schools to make the fullest and freest use of the collections.

Accessions.

Mr. Clarence B. Moore of Philadelphia, who gave the museum some two years ago a valuable collection of aboriginal shell and coral

objects from the Florida keys, has recently added to this gift a collection of pottery and other Indian articles mainly from Arkansas. Mr. J. T. Bowne, through whose efforts this material was secured, has kindly written the following description of this accession:—

“The collection comprises forty pieces of prehistoric pottery from southeastern Arkansas. Twenty from Arkansas County were from graves near Menard Mound, Old River Landing, and Sawyer’s Landing. Eighteen pieces were from near Greer, Jefferson County, and two from a mound near Douglas in Lincoln County.”

In addition to the pottery were the following objects: Shell beads, discoidal stone, arrow point from alligator scale, “charm stones,” copper beads, galena, which changed to white lead furnishes a basis for Indian paint, and an iron hatchet doubtless brought in by some trader.

Mr. Bowne continues: “As we have no Arkansas pottery in the museum, the gift was the more acceptable. The varieties of form and marking indicate great skill and the lot is a remarkably fine collection. The forms may be roughly grouped as flask-shaped, bowl-shaped, basin-shaped, and saucer-shaped. One is in the shape of a frog. A few have handles, and others bird’s-head ornaments on the rim. Several are ornamented with incised designs and two are painted.”

Mr. Nathan D. Bill, while in the far West, secured a collection of carefully selected examples of pottery, which illustrate clearly the work of the Cliff Dwellers of Arizona. The specimens, twelve in number, show in most satisfactory fashion the various shapes and patterns of the baked clay used by these people. The characteristic decorations add much to the value of these pieces.

Mr. Bill has also given two baskets, one the work of Indians in British Columbia and the other of tribes in Oregon and Washington.

Note should be made in this connection of the rapid growth in the department of archæology, which has been enriched by important gifts from Mr. Moore and Mr. Bill. These collections now occupy the two upper rooms of the Science Building, and are made up of gifts from Miss Mary A. Booth, Dr. Philip Kilroy, Mr. Nathan D. Bill, Mr. H. W. Seton-Karr, Mr. Clarence B. Moore, together with the material taken from the Wilbraham Indian workshop. The available room is now practically occupied and in the near future additional space must be found for the department.

Mr. Willard C. Gompf of Hartford, Conn., has presented a miscellaneous collection, mostly of relics of the Civil War and of John Brown and his raid at Harper’s Ferry. Some of the most noteworthy Civil War relics are from Appomattox and Bolivar Heights, Antietam, Gettysburg, Fredericksburg, Chancellorsville, and Peters-

burg. In the John Brown collection there is a Hall's rifle from Harper's Ferry, a collection of twenty-nine pictures to illustrate the life of John Brown and the vicinity of Harper's Ferry.

Mr. W. E. Parsons has given herbarium specimens and a number of fine mineral specimens.

Dr. William Thornton Parker has secured and presented parts of the skeleton of the common porpoise or fin-back whale and an interesting specimen of the ear bone of the whale. The skeleton parts were from Eastham, Mass., and the ear bone from Provincetown.

Mr. George S. Lewis, Jr., continues to add to his already rich department of botany, and Mr. Robert O. Morris maintains an active interest in local birds and mammals, so that under their care both of these departments are growing in a most satisfactory way.

Prof. William B. Kirkham has given a number of specimens and also a set of scientific reference books for the Catharine L. Howard Library.

Catharine L. Howard Library.

The annual meeting of the Catharine L. Howard Memorial Library Association was held in the museum February 25th. Among the valuable works presented to the library, mention should be made of Gerard's "Herball, or General Historie of Plants," London, 1633. Only one other copy of this work is known to be in this country.

The Fiftieth Anniversary of the Museum.

Your attention is called to the desirability of taking some action in regard to a recognition of the coming half century anniversary of the Museum. The beginnings of the collections date back to December 10, 1859, when a group of public-spirited citizens, among whom were Judge R. A. Chapman, Daniel L. Harris, John L. King, and George A. Otis, Jr., took steps to secure natural history collections for the use of the city. These specimens were first placed in rooms in the old City Hall. In 1871 they were moved with the library to the building which is now giving place to the new structure. The third home was in the room now occupied by the Horace Smith Hall of Sculpture in the Art Museum. In 1899 the present Science Building was completed.

It would seem fitting that at this time a history of the Museum should be made up while the facts are on record or may be obtained from persons familiar with the stages in the development of the institution. Possibly also it might be well to hold a public meeting in observance of the completion of fifty years.

Gifts of the Museum of Natural History.

May, 1908-1909

DEPARTMENT OF GEOLOGY.

- H. G. Denver. Apatite.
Mrs. Ellen E. Melius. Collection of minerals.
William Orr. Collection of geological specimens from Maine. Collection of geological specimens from Berkshire County.
William E. Parsons. Uncut diamond, South Africa. Diopside from Siberia.
Prof. Charles Schuchert, Yale University Museum, New Haven, Conn. Seventeen geological pamphlets.
Harry A. Wright. Graphite, Sturbridge.

DEPARTMENT OF ZOOLOGY.

- Emily B. Adams.
Black-billed cuckoo (*Coccyzus erythrophthalmus*), Springfield.
Junco (*Junco hyemalis*), Longmeadow.
Song sparrow (*Melospiza cinerea melodia*), Longmeadow.
Vesper sparrow (*Poocetes gramineus*), Longmeadow.
W. H. Chapin. Beaver chips, Maine.
Mrs. E. J. Dyotte, Agawam. Mud-turtle (*Chrysemys picta*), Agawam.
Mrs. Noyes W. Fisk. Spider and egg cocoon (*Epeira transversa*).
Frank P. Frost. Nest of ruby-throated hummingbird (*Trochilus colubris*).
Carlton Garnes, Harry Habel, Norman Richardson. Horned toad (*Phrynosoma cornutum*).
George M. P. Holt. Nautilus shells and nautilus (*Argonauta argo*), Florida.
William B. Kirkham. Collection of shells, Nassau.
W. J. Mackay. Tropical snakes.
Mrs. A. S. McClean. Moth (*Phycethontius quinquemaculata*).
Mrs. Nelson W. Merrill. Collection of sea shells, Florida.
Robert O. Morris.
Yellow rail (*Porzana noveboracensis*), pair, Longmeadow.
Acadian sharp-tailed sparrow (*Ammodramus caudacutus subvirgatus*), Longmeadow.
Woodcock (*Philohela minor*), Agawam.
Brook trout (*Salmo fontinalis*), State Hatchery.
Rainbow trout (*Salmo irideus*), State Hatchery.
Franklin W. Nash, Ludlow. Northeastern opossum (*Didelphis virginiana*), Ludlow.
W. Thornton Parker, M. D. Parts of skeleton of common orca whale (*Balaenoptera musculus*), Provincetown.
E. Linn Pease, Thompsonville, Conn. Hungarian partridge, pair.
John M. Wilson, Feeding Hills. Moth (*Tropaea luna*).
Collection of 20 birds purchased from William Dearden with funds from sale of duplicate birds.

DEPARTMENT OF BOTANY.

- Everett H. Barney. Puff-ball mushroom (*Lycoperdon giganteum*), Springfield.

- Frank D. Bishop. Collection of seeds.
 George S. Lewis, Jr. Collection of seeds and fibers.
 Robert O. Morris. Picture of "Queen Elm."
 William E. Parsons. Herbarium specimens.
 Claytonia caroliniana, Huntington.
 Waldsteinia fragarioides, Huntington.
 Hierochloa borealis, Feeding Hills.
 Fannie A. Stebbins. Collection of vegetable galls.

DEPARTMENT OF HISTORY OF MANKIND.

- Nathan D. Bill. Collection of Cliff Dwellers' pottery, Arizona; and Indian baskets from British Columbia and Oregon.
 Miss Mary A. Booth. Colonial relics, Longmeadow.
 Willard C. Gompf, Hartford, Conn. Collection of historical relics.
 Clarence B. Moore, Philadelphia, Pa. Collection of prehistoric pottery, Arizona.
 W. Thornton Parker, M. D. Arm-band worn in Boer War.

MISCELLANEOUS GIFTS.

- William B. Kirkham. Collection of books, apparatus, and natural history specimens.
 W. Thornton Parker, M. D. Collection of books, bird plates, and woods.
 Horace Smith estate. Six hundred dollars for publication of bulletins No. 3 and 4.

Since the lists issued in the last report, one society has been added to our list of exchange publications, viz.: Perthshire Society of Natural Science, Perth, Scotland.

 TREES.

Articles giving descriptions and locations of trees in Springfield, printed in the City Library Bulletin, December, 1906, to May, 1909.

In various parts of the city there are trees which at different seasons are conspicuous because of seed pods, color, or certain peculiarities of appearance; also some rare species. Descriptions of, or specimens from, such trees are frequently brought to the museum by persons wishing to know more about them, and so much interest has been shown that the museum is publishing in the library bulletins brief accounts of some of the more noticeable and rare species.

Notes for these accounts are taken principally from Charles Sprague Sargent's "Silva of North America," a choice and extensively illustrated work of fourteen volumes in the Catharine L. Howard Library in the Science Building. This library is open to the public from 1 to 5 p. m. in winter, 2 to 6 p. m. in summer.

Trees described.—Three-thorned Acacia or Honey Locust (*Gleditschia triacanthos*) in the Bulletin for December, 1906. 2. Kentucky Coffee Tree (*Gymnocladus dioica*) in January, 1907. 3. Yellow Locust or False Acacia (*Robinia pseudacacia*) in February. 4. Sycamore or Buttonwood (*Platanus occidentalis*) in March. 5. Tulip Tree or Yellow Poplar (*Liriodendron tulipifera*) in April. 6. Catalpa in May. 7. Ginkgo in June. 8. Maples in August-September. 9. Hackberry or Sugarberry (*Celtis occidentalis*) in October. 10. Ailanthus, Tree-of-Heaven, or Chinese Sumac (*Ailanthus glandulosa*) in November. 11. Tupelo, Pepperidge, Sour Gum or Black Gum (*Nyssa sylvatica*) in December. 12. Yellow-wood, Virgilia (*Cladrastis lutea*) in January, 1908. 13. Pines: (a) White Pine (*Pinus strobus*), (b) Pitch Pine (*Pinus rigida*),

(c) Red or Norway Pine (*Pinus resinosa*), in February. 14. Black Walnut (*Juglans nigra*) in March. 15. White Poplar or Silver-Leaf Poplar (*Populus alba*) in April. 16. Larch, Tamarack, Hackmatack, Juniper (*Larix americana*) in May. 17. American Beech (*Fagus americana*) in June. 18. Lombardy Poplar (*Populus nigra italica*) in July. 19. Red Mulberry (*Morus rubra*), White Mulberry (*Morus alba*) in September. 20. Scottish Rowan Tree or Mountain Ash (*Pyrus aucuparia*) in October. 21. Red, Brown or River Ash (*Fraxinus Pennsylvanica*) in November. 22. Balm of Gilead (*Populus balsamifera*) in December. 23. Sassafras (*Sassafras sassafras*) in January, 1909. 24. Birches: (a) Canoe, White or Paper Birch (*Betula papyrifera*), (b) White, Gray, Poplar or Poverty Birch (*Betula populifolia*), (c) Black, Cherry or Sweet Birch (*Betula lenta*), (d) Red or River Birch (*Betula nigra*), (e) Yellow or Gray Birch (*Betula lutea*), in February. 25. Hedge Trees: (a) Buckthorn (*Rhamnus cathartica*), (b) Arbor-Vitae (*Thuja occidentalis*), (c) Osage Orange (*Maclura pomifera*) in March. 26. Cottonwood or Necklace Poplar (*Populus deltoides*), in April-May.

Springfield Botanical Society.

PROGRAM FOR 1908-1909.

1908.

- Apr. 17. Annual Meeting.
Apr. 18. Trees in Literature. Mrs. S. O. Allen.
May 1. Canal Zone. Mr. Ashton E. Hemphill.
May 8. Life of Linnaeus. Miss Grace Puffer.
May 15. Plant Growth. Dr. George E. Stone.
May 22. Tree Identification.
May 29. Bradford Torrey and his work. Mrs. J. H. Shaw.
June 5. Tree Identification.
June 12. Shakespeare's Trees. Mrs. F. I. W. Burnham.
June 19. Soils in Relation to Plant Life. Miss W. S. Sanborn.
June 20. Field Day at Mt. Toby.
June 26. Tree Identification.
July 10. Tree Identification.
July 17. Tree Identification.
July 24. Big Trees of California. Mrs. E. J. Lazelle.
Aug. 7. Miss Stebbins' Collection from New Hampshire (White Mountains).
Aug. 14. Tree Identification.
Aug. 21. New York Botanical Gardens. Mrs. E. L. Leonard.
Aug. 28. Tree Identification.
Sept. 4. Common Plant Variations. Prof. Frank S. Watson.
Sept. 11. Round Table by Members.
Sept. 18. Tree Identification.
Sept. 25. Tree Identification.
Oct. 2. Tree Identification.
Oct. 9. Edible Roots of the United States. Miss Josephine E. Strong.
Oct. 16. Tree Identification.
Oct. 23. Reports on Trees Identified.
Oct. 30. Fossil Botany. Miss Elizabeth Booth.
Nov. 14. At Mrs. Burnham's, to study the trees in her dooryard.
Dec. 12. Experiments in Plant Physiology. Dr. G. E. Stone.
Jan. 16. Native Plants Suitable for Culture in Home Grounds. Mrs. E. C. Powell.
Feb. 27. Plant Culture as Taught at Mt. Holyoke College. Mr. Asa S. Kinney.
Mar. 20. Trees and the Creatures They Harbor. Mr. Charles G. Whiting.

Scientific Societies in Springfield.

Springfield Botanical Society.

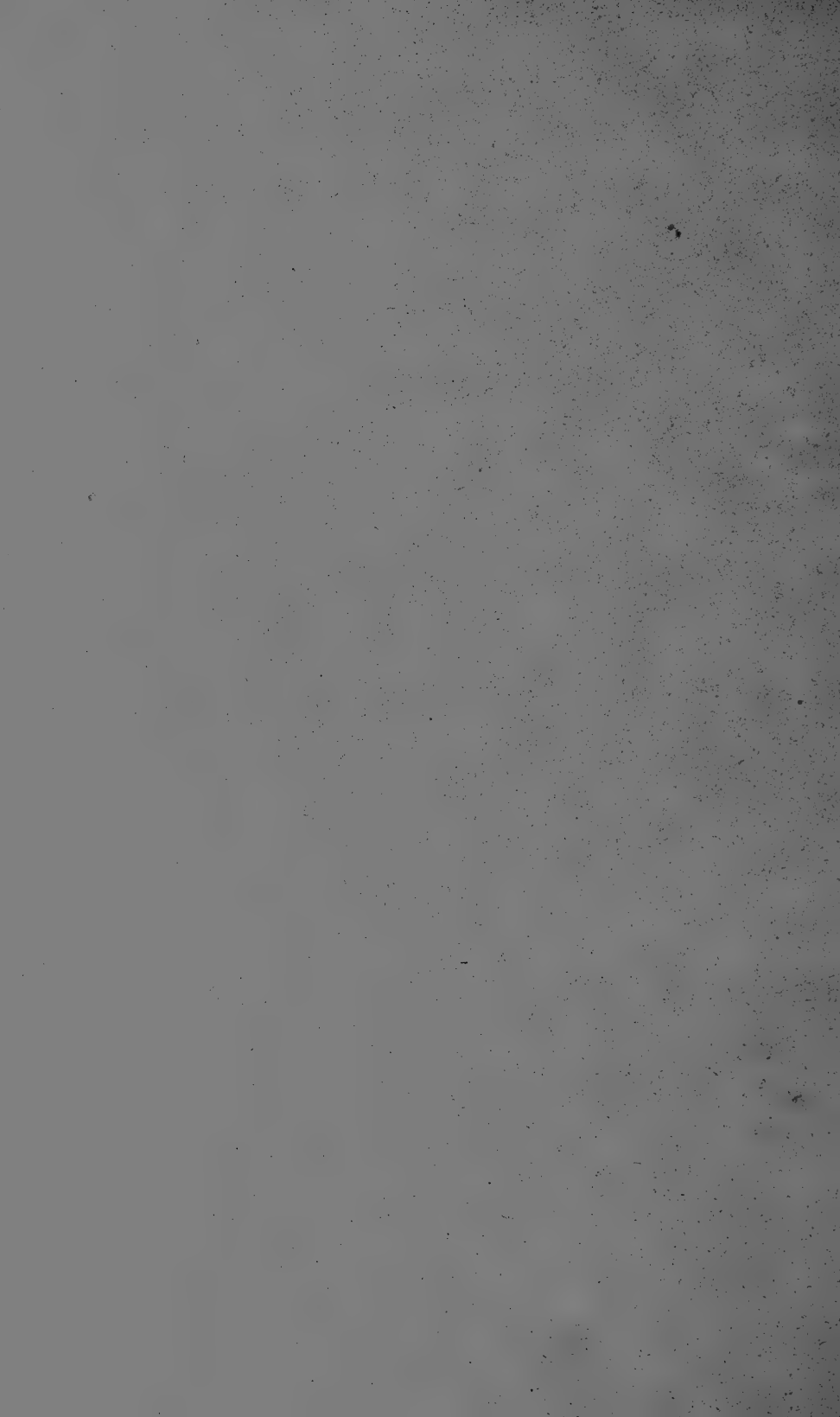
MRS. MARIA L. OWEN, Honorary President.
MISS FANNIE A. STEBBINS, President.
MRS. S. O. ALLEN, Vice-President.
MRS. F. I. W. BURNHAM, Corresponding Secretary.
MISS ELIZABETH BOOTH, Recording Secretary.
MISS SARAH M. CHAMPION, Assistant Recording Secretary.
MISS NELLIE A. DWIGHT, Treasurer.
MR. ROMAN A. CRANE, Auditor.
DR. GEORGE DIMMOCK, Curator.
MISS ELIZABETH J. STEELE, Chairman Executive Committee.
MISS WINIFRED S. SANBORN, Chairman Fieldmeeting Committee.

Springfield Geological Club.

ROMAN A. CRANE, President.
ASHTON E. HEMPHILL, Vice-President.
MISS ELIZABETH ARNOLD, Secretary and Treasurer.
EX. COM., WALTER G. WHITMAN.

Springfield Zoological Club.

WALTER H. CHAPIN, M.D., President.
ROMAN A. CRANE, Vice-President.
MISS MABEL R. WATSON, Secretary and Treasurer.
EX. COM., GEORGE DIMMOCK, MISS FANNIE A. STEBBINS.



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LIBRARY
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UNIVERSITY OF ILLINOIS

14 SEP 1914

REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASS., MAY
NINETEEN HUNDRED AND TEN

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING
MAY FIRST, NINETEEN HUNDRED AND TEN

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

Museum of Natural History.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year, except July 4, Thanksgiving Day, and December 25, 2 to 6 from March 21 to September 21; 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open every day in the year, except July 4, Thanksgiving Day, and December 25, 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

Curator of the Museum of Natural History.

GRACE PETTIS JOHNSON.

Museum of Natural History.

Report of the Curator.

To the Directors and Members of the City Library Association:—

The sixteenth annual report of the Museum of Natural History is hereby respectfully submitted:—

Two principal functions devolve on the executive staff of a museum: the most obvious and simple consists in the care of building, cases, and collections, the cataloguing and labeling of material, the preparation of special exhibits, the safeguarding of specimens, provision for the comfort and convenience of visitors, and the publication of technical monographs and bulletins; the second, less easy to describe in definite terms, is to use the museum as a means to arouse an active interest in natural history, to develop love of field, forest, mountain, and stream, to induce a scientific attitude towards questions of the individual life, and of community policy in the constituency to which the institution ministers.

Under the first head come the commonplace but important duties which secure efficient and economical administration, but the best results of museum effort are made possible only when the institution, within its territory and correlated fields, becomes an active factor, an aggressive influence, in advancing education and inspiring public opinion.

This report, in dealing with the work of the past year and in plans for the future, distinguishes in some measure between these two phases of activity under two main heads—Administration and Propaganda.

Administration.

The association is to be congratulated that the Science Building, as demonstrated by an experience of twelve years, is well adapted for museum purposes. Its simplicity of construction and plan, and the grouping of cases, make oversight easy and inexpensive. Cleanliness, combined with neat and attractive appearance, is secured with minimum effort. An advantage is also found in the limited range

of the collections, coupled with satisfying variety in nature of specimens and form of presentation, so that visitors are neither bewildered nor wearied. Large recognition is also made of local archæology, fauna, flora, and rock formations.

In other words, the museum "wears well." With a staff decidedly limited in numbers, the routine work has been carried on, and each year some new features added.

Cataloguing.

The work of cataloguing the objects in the museum has been distributed, during the past year, over different departments. A large part of the botanical specimens are now catalogued, and subject slips have been made for nearly all the mollusks, which were well represented in the early collections of the museum by over a thousand kinds of shells. Mr. Arthur P. Irving has assisted in cataloguing the lantern slides in the museum, most of which were given by Miss Fannie A. Stebbins. In connection with preparation for the fiftieth anniversary of the establishment of the museum, a list of donors has been completed and numbers over 900 names. A careful examination of scattered records in early reports of the City Library Association and museum, and of data on labels of specimens, was necessary, and the names of givers range from those who have contributed a single object—a common insect or an arrowhead—to those who have added entire collections of hundreds of specimens, or specimens worth hundreds of dollars.

The method of cataloguing on slips, contrived especially for this museum by Dr. George Dimmock, which was described in the annual report for 1908, was briefly explained by him at the meeting of the New England Federation of Natural History Societies, at the museum last September, and copies of slips actually in use were shown.

Publications.

In view of the favorable comment called forth by the monographs heretofore issued under the auspices of the museum, it is a pleasure to announce the completion and publication of a second bulletin of the museum, that by Miss Fannie A. Stebbins on "Insect Galls of Springfield, Massachusetts, and Vicinity." This monograph is to be sent to scientific societies, museums, and periodicals from which the museum receives publications in exchange. The bulletin contains descriptions and bibliography of 205 species of galls, of which 34

kinds are described as new, and its 32 plates illustrate with half-tone figures from photographs 97 varieties of galls, including 21 of the new species. In the body of the work the galls, with their bibliography, are arranged in a systematic order of the host plants. A list of papers, examined and cited by the author, follows, occupying 11 pages. To a very full catalogue index of the gall insects, as classified, is added an alphabetical index of the common and scientific names of the plants mentioned in the treatise. This fully illustrated bulletin is comprehensive, and, as it deals with a subject interesting both to the entomologist and to the investigator in pathological botany, is bound to attract attention to the museum, and will undoubtedly add to its exchange list of publications.

Material is being gathered for a third monograph—"The Notable Trees of Springfield and Vicinity." The notes that have from time to time appeared in the monthly bulletin of the association will be compiled, and, together with other descriptions, will make up an interesting and valuable manual of our local trees, and promote their study and preservation. The work will be illustrated by many photographs, and the text will give both scientific description and historical information. The expense of this bulletin, like that of the one on galls, is to be met by a grant from the trustees of the Horace Smith estate.

It is hoped before long to issue a summary of the studies of bird migration, made each year since 1901, and of the dates of blossoming plants, as observed since 1902. A ten-year period is long enough on which to base generalizations of scientific value.

Another opportunity for a monograph is to be found in a guide-book to the rock formations and physical geography of the Connecticut valley, for the use of schools, teachers, and students of local geology. Some work has been done on such a manual, but its progress has been delayed by other demands on the time of the Curator.

Mention also should be made of the notes on the museum which appear in each monthly bulletin of the association; these do much to inform the public, and to increase the patronage of the collections by visitors from school and community.

Accessions.

The museum is constantly gaining new material, and the good will of its many friends, as manifested through gifts, is a gratifying form of public support.

Nathan D. Bill continues to enrich the collections with timely and well-selected specimens. The department of archæology has received from him, recently, a number of articles of pottery from the cliff dwellings of Arizona. These specimens supplement the large collections of Indian and pre-historic material already in possession of the museum. This addition has made necessary the installation of three new cases. Mr. Bill has also given many Colonial relics.

The department of zoölogy has received from him a finely-mounted specimen of a bull moose, shot by the donor at the hunting grounds of the Iroquois Club, 75 miles north of Quebec.

Mr. George S. Lewis, Jr., has added largely to the material in botany. So extensive and varied are the collections in this field that the space allotted for their exhibition is by no means adequate, and the need of additional cases must soon be recognized.

The collection of galls gathered by Miss Fannie A. Stebbins in the preparation of Bulletin No. 2 has been presented to the museum.

Prof. J. H. Emerton of Boston has given a number of spiders, identified as belonging to 16 species, all of local habitat.

Miss Mary A. Booth, to whom the museum is indebted for so many valuable gifts, has presented it with fossils from Barbadoes, and with a number of Colonial relics.

Mr. Waterman S. C. Russell, director of science in the Central High School, brought back from Iceland last fall a series of minerals and rocks illustrating the geology of that island, and these have been added to the collections in the Science Building. Many of the specimens are volcanic or igneous in nature, and they constitute a suggestive approach to the study of the remarkable country whence they came. Probably few museums in the United States possess such an extensive range of illustrations of Icelandic formations.

The City Library Association has purchased three pieces of apparatus for making certain tests in psychology. It is intended to use these instruments in supplementing the data secured by the department of physical training in the public schools, in the hope of reaching conclusions of value in educational methods.

Three new cases have been placed in the archæological room; one of these is set apart for the Russian and Scandinavian relics and curios, collected and given to the museum many years ago by Mr. Daniel L. Harris; another contains pottery of the Arizona cliff dwellers; and the third is allotted to the Indian implements and pottery presented by Mr. Clarence B. Moore of Philadelphia.

The Catharine L. Howard Library.

From the report made at the annual meeting of the association, through whose generosity this valuable collection of reference books is maintained, it is clear that a fund of sufficient amount has been accumulated to provide for additions of such standard works as are desirable. The room where the library is placed is admirably adapted for its purpose and attracts each year an increasing number of readers. The thanks of the museum and the public are due the women who have established this useful, fitting, and enduring memorial to an esteemed and beloved teacher.

MUSEUM PROPAGANDA.

Attendance.

A ready and simple means of extending the influence of the museum and making it an effective medium for public education is found in the encouragement of people, young and old, to visit and study the collections. Appeals to the interest of the community are made through special exhibits and frequent use of press items in regard to the various activities of the museum and the notable additions. Such publicity is in reality taking the people into confidence. It is a pleasure to acknowledge the readiness of the papers of the city to actively coöperate with the museum officials.

While the limited number of attendants makes it necessary to restrict the hours of opening to the general public, it is always possible to make arrangements for visits by classes, and for purposes of special study, at any hour of the day.

The data of general attendance indicate a total of 30,000 visitors during the year.

Public School Classes.

Every facility is offered for the use of the collections and special exhibits by the pupils of the public schools. It is especially desired that teachers should bring classes and feel the utmost freedom in thus supplementing the work of the class room. Thus far, however, one must acknowledge that patronage of this nature has fallen short of expectation. In a community like Springfield, where all means of instruction are so highly valued, it is to be hoped that there will be increasing advantage taken of the resources of the museum.

Teachers are asked to keep in mind the invitation of the Curator, and also to suggest any way in which the schools may be better served.

The figures for attendance by classes are as follows:—

City schools	44
Schools outside city.....	18
	—
Total	62

Total number of pupils, 1047.

A loss from the attendance of last year is shown.

Loan Collections.

An extension of the work of the museum in making up and distributing loan collections to the schools is greatly to be desired. The results from the small beginnings of such effort show large possibilities. There are many phases which this kind of service to the children may assume. Special exhibits may be correlated with some line of study, or with topics of popular discussion, such as volcanic action, when Vesuvius or Aetna are in restless mood; Arctic exploration, when an explorer returns or departs; new enterprises in agriculture or engineering; and improvements in lawns and home gardens. Intelligent loyalty to any cause among school children is one of the best methods of securing progress, and museum exhibits may be used to promote such devotion to civic betterment.

Lectures.

The personal influence exerted by the lecturer multiplies the significance and value of specimens. Vague and desultory attention on the part of the observer is transformed into ordered, persistent, scientific study. Furthermore, the listener is encouraged and directed in systematic application. Several lectures have been given with gratifying results during the past year. The list is as follows:—

March 19, 1910. Lewis B. Allyn, professor of chemistry in Westfield State Normal School, on "Chemistry and Twentieth Century Superstition."

April 15, 1910. Talk on "Arrangement and Classification of Birds in the Museum," by the Assistant Curator.

April 30, 1910. Lecture on "Birds" by Ernest Harold Baynes, for the Massachusetts Audubon Society.

Scientific Societies.

The museum promotes the pursuit of studies in natural history by the facilities it affords for the meetings of organizations engaged in scientific research. An unusually strong and progressive body is the Botanical Society, which maintains a regular annual program of talks and lectures, and also conducts excursions and rambles for the study of local flora, as the season and weather permit.

An important gathering was that of the New England Federation of Natural History Societies, which met at the museum by invitation of the Botanical Society for a two-days' session—September 24 and 25, 1909. The program included lectures by authorities on various phases of natural history; exhibits of plants, animals, and minerals; a social gathering; and an excursion to Mount Tom.

The influence of such societies and meetings is by no means limited to the membership, but is felt in an increased interest in natural science throughout the community.

On June 1, 1909, a local committee was appointed to cooperate with the Audubon Society in taking measures for the protection of birds.

Classes.

A direct mode of instruction is that afforded by organized class work. Two lines have been followed during the past year:—

Miss Fannie A. Stebbins, supervisor of nature study in the public schools, has conducted a series of exercises for teachers on topics in mineralogy and ornithology, with an average attendance of 25.

The Assistant Curator has given during the winter and spring a course of 12 lessons in mineralogy, in which there was an enrollment of 54 students.

Special Exhibits.

A wise administrator in museum matters takes note of the devices used in the business world to attract and hold patronage. Variety and change are essential to good advertising. Advantage may be taken of any particular popular interest. Articles which, in their wonted place on the shelves, would pass unnoticed, when grouped in a new arrangement, at once attract attention, and increase attendance. For several years the practice has been followed of exhibiting flowers in their season, and birds according to their migration. Such combinations may be effected on many lines.

Among the special exhibits of the year, mention should be made of the Icelandic collection of W. S. C. Russell, the group of winter birds, a collection of galls, of seeds, of the flora of the region, and of spiders. These displays were made in connection with the meeting of the New England Federation of Natural History Societies.

A new departure of moment has been made the past year in coöperation with the American Museum of Natural History of New York city, through the good offices and generosity of Nathan D. Bill. A number of articles from the Arctic regions, used or collected by the Peary party, have been displayed in the main hall for several weeks. Advantage has been taken of the popular interest in the search for the North Pole, and this interest has been directed along lines of further study and research so as to lead to reading of books on Arctic exploration, on the Eskimos, and on the physical geography of the regions traversed by Peary and his companions. In April the museum was opened on Saturday evening for the benefit of those who could not otherwise see the exhibit. The success of this venture on the part of the museum warrants a repetition of the experiment along other lines, and just as the American Museum of Natural History, out of its treasures, aids greatly the work of smaller institutions by putting at their disposal such loan collections, so this museum may do a like service for towns and villages in its vicinity and thus foster nature study, promote the work of the public schools, enrich individual lives, and broaden community outlook.

The Fiftieth Anniversary.

Due recognition is to be made of the completion of half a century of work by this department of the association. An historical sketch of the early beginnings of the collections, and their steady progress in size and quality, with a description of the several quarters provided for the museum, and an account of the steps whereby the present Science Building was secured, together with personal notes on those who have contributed time, energy, and money to the upbuilding of the institution, has been prepared for publication. An informal reception is to be held at the Science Building after the annual meeting of the association, and in the evening a lecture open to the public will be given by A. Radclyffe Dugmore, the noted traveler and naturalist, on "Wild Animals of Africa," at the Central High School.

The Outlook for the Museum.

Such an occasion as the opening of the second fifty years of activity naturally suggests some forecast of the probable trend of the service the museum is to render in the future, and the part it is to play among the other industrial, educational, and social forces in the community.

One may confidently look for larger provision in the collections of material bearing on the commercial and manufacturing interests of the city and surrounding country. An equipment illustrating the raw material of the textile, paper, metal, and other local trades, the different stages in bringing such material to the completed fabric or article, with examples of the best productions of other localities and countries, could be used as a basis for lectures and class work through which intelligence, skill, and pride in their calling could be developed among artisans. Clerks and salesmen also profit greatly, and increase their efficiency by accurate knowledge of the materials with which they have to do. Many specimens in botany, under the head of fibers, are now available for such instruction. Much, also, may be done in teaching some approaches to scientific agriculture, and the museum may be made a center for spreading a knowledge of modern methods of plant culture, and protection against insects and other enemies. In such a way the use of government publications may be greatly extended. These practical courses in the museum will supplement the service the public schools are rendering in their departments of trade, technical, and commercial instruction. The Commercial Museum of Philadelphia illustrates the possibilities of such a department.

In the more strictly educational field, the museum is already doing much, but by no means reaching as wide a constituency as is desirable. The class work is comparatively meager, and imperfectly organized. University extension methods should be used on a generous scale. Instructors of acknowledged ability could be secured from neighboring colleges to conduct classes in botany, zoölogy, geology, and mineralogy. The unit course might be fixed at six exercises, with the understanding that where the subject warranted the number of lessons could be increased to 12 or 18. With the specimens at hand for illustration, the use of the excursion to study the country, and the abundance of books of reference available in the Catharine L. Howard and main library, only the zeal and application of the students would limit the results. Popular lectures constitute another

means of museum extension only partially exploited. It is superfluous to say that such an educational program attains fullest success when there is hearty coöperation between schools, colleges, and scientific organizations and the museum.

Finally, like any public institution in the democracy, the museum must be judged by the influence it exerts on the level and standards of community life; in other words, it must be a social force. The individual must be helped in his thinking, and led to find greater satisfaction in the use of all his powers. He must learn to subordinate selfish aims and ambitions to the good of civic organism. Such an attitude involves the habit of scientific judgment of facts and conditions. Conclusions should not be based on personal bias, but on a candid and unprejudiced examination of the many sides of any situation.

Reforms are slow of progress in a democratic society because of the long time required to really inform the public, to dispel prejudice, and to convince the voter of the ultimate advantage all are to gain from the betterment. Now the museum may in most effective fashion contribute to this community service, and so take its rightful place among other agencies in the significant movement to make all knowledge a common possession of the people, and transform Plato's vision of a Republic of Letters into the reality of the Democracy of Learning for all.

WILLIAM ORR, *Curator.*

Gifts to the Museum of Natural History.

MAY, 1909—MAY, 1910.

DEPARTMENT OF GEOLOGY.

- Edwin P. Ball. Fossil fish (2 specimens) from Turners Falls.
Miss Mary A. Booth. Fossil polycystina from Barbadoes.
Emmett J. Goewey. Limonite.
James & Marra. Sandstone from East Longmeadow.
George H. Loomis, Winchester. Stalactite from Bermuda. (Exchange.)
William Orr. Granite from New Harbor, Maine.
William O. Parmenter. Pudding stone from Taunton.
Waterman S. C. Russell. Collection of minerals from Iceland.
Mrs. John E. Witherell, South Worthington. Minerals from mines in Plainfield and Rowe.

DEPARTMENT OF ZOOLOGY.

- Richard P. Bigelow. Spider.
Nathan D. Bill. Bull moose from Canada.
John Brearley. Milk adder from Northampton.
M. J. Chamberlain, Hastings-upon-Hudson, N. Y. Birds' eggs.
J. Alden Davis. Spider.
Leo De Montigny. Snake.
James H. Emerton, Boston. Collection of identified spiders.
Jennie and Eunice Johnson. Collection of snakes.
Mrs. Edmund C. Keyes. Variation of Norway rat.
William Orr. Sea shells from Damariscotta, Maine.
W. Thornton Parker, M.D. American bittern, and blade from a swordfish.
Springfield Republican. Photograph of penguins in the antarctic regions.
Photograph taken by Dr. Frederick Cook, the explorer, when he was a member of the Belgium expedition. Given to the Republican by Albert Dwight Smith.
Miss Elizabeth L. Rowell, West Springfield. English starling from West Springfield.
Stephen D. Sheldon. Northern phalarope from Agawam.

DEPARTMENT OF BOTANY.

- Luman Andrews, Southington, Conn. Extensive collection of herbarium specimens.
Miss Gertrude B. Chaffee. Fan-leaf palm.
Smith B. Fisher. Collection of mounted sea mosses.
George S. Lewis. Specimens of Indian corn and section of wood bearing fungus growths.
Mrs. F. K. Rood. Tamarind plant.

DEPARTMENT OF HISTORY OF MANKIND.

- Charles H. Annable. Bell-metal gong from the old Bates Tavern that formerly stood on the southwest corner of State and Main streets.

- Nathan D. Bill. Peary arctic exhibit. (Temporary.) Collection of colonial relics.
- Miss Mary A. Booth. Wedding vest worn by Ebenezer C. Colton about 1840. Draper Company, Hopedale. Bobbin and shuttle.
- Mrs. Charles H. Ginn for Charles H. Ginn. African chief's robe from Africa.
- Oscar B. Ireland. Relics from the Hudson-Fulton Celebration.
- George S. Lewis. Picture. Title, "A Unique Sanscrit Library; Tanjore."
- Daniel J. Marsh. Relics from the old Bates Tavern that formerly stood on the southwest corner of Main and State streets.
- New England Society of the City of New York. Bronze medal commemorative of the 100th anniversary of the founding of the society.
- W. Thornton Parker, M.D. Apache quiver and arrows.
- Southern Pacific Railroad Company. Eight framed photographs of California scenery.
- Miss Carrie E. Spencer. Colonial documents and pictures.
- Springfield Auxiliary of Massachusetts Volunteer Aid Association. Utility case and supplies.
- Mrs. John E. Witherell, South Worthington. Colonial lunch basket of metal. About 100 years old.

Since the lists issued in previous reports, one museum has been added to our list for exchange of publications, viz.: Yale University Museum, New Haven, Conn.

Springfield Botanical Society.

PROGRAM FOR 1909-1910.

- 1909.
- April 23. Darwin's Contribution to Science. Dr. Walter H. Chapin.
April 30. Life of Darwin. Miss E. J. Steele.
May 8. Identification of Trees. Dr. George Dimmock.
May 14. Darwin's Fertilization of Orchids. Miss S. E. Booth.
May 21. Class Work on Oaks. Miss F. A. Stebbins.
May 28. Class Work on Cornus and Viburnums. Mrs. C. F. Leonard.
June 4. Field Day at Mr. E. H. Barney's.
June 12. Fern Day at Mt. Toby.
June 18. Identification of Trees.
June 25. The Effect of Cross and Self Fertilization. Miss W. S. Sanborn.
July 2. Identification of Trees.
July 9. The Power of Movement in Plants. Miss J. E. Strong.
July 16. Identification of Trees.
July 23. Identification of Trees.
July 30. Identification of Trees.
Aug. 20. The Arnold Arboretum.
Aug. 27. Our Native Wild Flowers. Mrs. F. I. W. Burnham.
Sept. 3. Botanical Chemistry. Mr. Frank D. Bishop.
Sept. 10. Insectivorous Plants. Miss Annie E. Smith.
Sept. 17. Botanical Wonders of Former Times. Prof. Frank E. Watson.
Sept. 24&25. Meetings of the New England Federation of Natural History Societies.
Oct. 1. Variations in Animals and Plants. Miss Grace Puffer.
Oct. 8. Summer Reminiscences. The Members.
Oct. 15. Flora of Alaska and the Northwest. Miss F. A. Stebbins.
Oct. 22. Excursion to the Berkshires.
Nov. 13. Experiences in Guatemala. Miss Grace Smith.
Dec. 11. Card Catalogue.
- 1910.
- Jan. 8. Card Catalogue.
Feb. 9. Card Catalogue.
March 9. Card Catalogue.

Scientific Societies in Springfield.

Springfield Botanical Society.

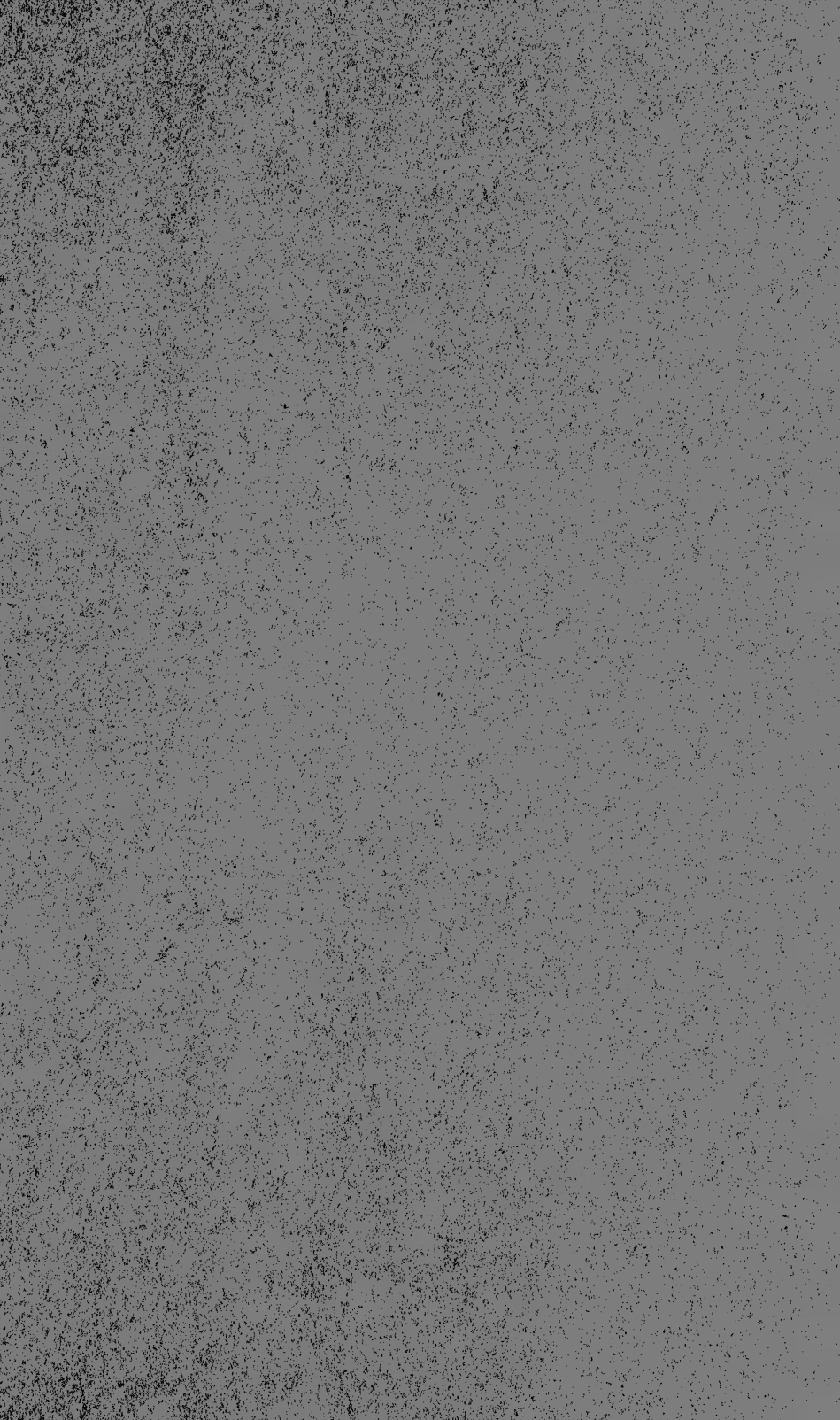
MRS. MARIA L. OWEN, Honorary President.
MISS FANNIE A. STEBBINS, President.
MRS. JESSIE E. ALLEN, Vice-President.
MISS GRACE A. PUFFER, Recording Secretary and Treasurer
ROMAN A. CRANE, Auditor.
MRS. F. I. W. BURNHAM, Corresponding Secretary.
DR. GEORGE DIMMOCK, Curator.
MISS ELIZABETH STEELE, }
MISS ELIZABETH BOOTH, } Executive Committee.
MISS JOSEPHINE STRONG, }
MISS WINIFRED S. SANBORN, Chairman Field Committee.

Springfield Geological Club.

ROMAN A. CRANE, President.
ASHTON E. HEMPHILL, Vice-President.
MISS ELIZABETH ARNOLD, Secretary and Treasurer.
WALTER G. WHITMAN, Executive Committee.

Springfield Zoological Club.

DR. WALTER H. CHAPIN, President.
ROMAN A. CRANE, Vice-President.
MISS MABEL R. WATSON, Secretary and Treasurer.
MISS FANNIE A. STEBBINS, }
DR. GEORGE DIMMOCK, } Executive Committee.





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14 SEP 1914

REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASS., MAY
NINETEEN HUNDRED ELEVEN

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING
MAY FIRST, NINETEEN HUNDRED ELEVEN

LIBRARY
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UNIVERSITY OF ILLINOIS
14 SEP 1914

Museum of Natural History.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21; 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

Curator of the Museum of Natural History.

GRACE PETTIS JOHNSON.

Museum of Natural History.

Report of the Curator.

To the Directors and Members of the City Library Association the curator respectfully presents the seventeenth annual report of the Museum of Natural History:—

At the last annual meeting of the City Library Association was commemorated the fiftieth anniversary of the founding of the Museum of Natural History.

Public observance of the event began with a reception, which proved to be a delightfully informal social occasion. During the afternoon hundreds of visitors were welcomed to the building by officers of the association and their wives, and tea was served in the Catharine L. Howard Memorial Library, where guests were welcomed by officers of that organization.

The building was beautifully decorated for the occasion, especially in the Howard room; and by the Springfield Botanical Society there was a choice display of wild flowers.

Another feature of the celebration was the preparation and distribution of "An Historical Sketch of the Springfield Museum of Natural History." This sketch gives an account of the beginnings and progress of the museum, its present status and purpose, descriptions of its various homes, lists of contributors to building and collections, with illustrations of the first board of trustees and all of the curators.

In the evening there was a popular lecture by Mr. A. Radclyffe Dugmore on "Wild Animals of Africa," to which the public was cordially invited. There was a hearty response to this invitation and evidence of appreciation of the interesting tales told and illustrated.

Resignation of Mr. William Orr.

With the closing of the first half century in the museum's history terminated the curatorship of Mr. William Orr, who resigned following his appointment as deputy commissioner for the State Board of Education, which appointment involved a change of residence.

The progress and development of the museum during Mr. Orr's régime were pronounced, and signify what the City Library Associa-

tion loses by his departure. His policies were broad, and looked to the establishment of proper foundations for the future development of an institution which has had a strong hold upon his interest and attention.

Unity of purpose between Mr. Orr and those who have worked with him and who succeed him assures continuance of procedure which has brought our museum to its present gratifying proportions, where it takes its stand with other industrial, educational, and social forces in the community.

That general prosperity and advancement continue is evinced by the following accounts of increase in attendance and activities.

Attendance.

An estimate made from recorded attendance indicates that nearly 12,000 more than the usual number of people visited the museum during this year. Until recently the attendance during the summer months has been small, and again at the beginning of winter a decrease has been noticed. Gradually more people have been coming through July and August, and this past year the forestry exhibit through October and November appreciably raised the figures; which increase in a measure continued until the coming of spring, through which season there is rarely a lull. Sunday brings many people and Saturday morning opening adds to the list. The estimated general attendance for the year was 41,291.

Especial Co-operation with the Public Schools.

Forestry Exhibit.—For several weeks in the autumn all available table space in the museum was occupied with a most commendable forestry exhibit, which was prepared by seventh grade pupils of the public schools under the direction of Miss Fannie A. Stebbins, supervisor of nature study.

The preparation of this collection taught the children what forestry means, and the fact that it was to be exhibited in a public place where parents and other citizens would have opportunity to see what is being accomplished, stimulated pupils and teachers to their best endeavors.

The work of 11 schools was brought together. Each was assigned a different subject and consequently from one came an extensive display of pictures illustrating many phases of proper and improper lumbering, reforestation, methods of protection against harmful

effects of insects, disease, and fire. Another displayed sections of wood and leaves upon which insects were breeding and working; another, various fungi; others contributed kinds of wood, with drawings of trees and accompanying essays concerning the use of different species. Fruits were displayed; demonstrations of the absorption of moisture by various soils were given, and with each were neatly prepared explanatory labels. Much good from such work must arise, and surely the coming generation will better understand the vast importance of conservation.

Teachers' Meetings.—In connection with the public school study of natural history a series of teachers' meetings have been conducted by the supervisor, Miss Stebbins, who has brought to the attention of teachers the museum material available for their use.

Classes.—These meetings have resulted in an increased use of the museum by pupils. Not so many classes with teachers have come as in some past years, but a constantly increasing number of children do come for a definite purpose and ask for assistance of the attendants. A certain number of visits, and reports upon observations, constitute a part of their school work.

An effort is being made to give more individual attention to children, and there are opportunities for worthy results along this line.

Museum Publications as Reference Books.—Another method of coöperation is the use of the museum's publications. Copies of Bulletin No. 2 on "Insect Galls of Springfield and Vicinity" by Miss Stebbins, which the museum published last year, have been placed for reference in libraries of the 36 buildings, and the recent publication, "Birds of Springfield," is regularly used as a nature notebook.

Co-operation with the Library.

Never have relations between museum and library been closer than to-day. By displaying books and pictures in connection with special exhibits, supplying attendants at intervals, and by general interest and endeavor, the library helps to further every undertaking of this closely related department.

Free Lectures and Excursions.

The lectures delivered during the year under the auspices of the museum number 18, and were as follows:—

Course of 10 lectures on geology by Miss Mignon Talbot, professor

of geology at Mount Holyoke College, an outline of which is given in the appendix of this report. These lectures were supplemented by a series of excursions conducted by Miss Fannie A. Stebbins, and this field work related directly to what had been considered in preceding lessons. The course took the form of class work and there were 35 members, about half of whom were teachers, together with several physicians and other professional men whose interest increased as the course progressed.

Under the auspices of the Springfield Volcanic Research Society and the museum, Prof. Thomas A. Jaggar, Jr., of the Massachusetts Institute of Technology gave a talk on "Volcanoes," and "The Story of Messina Earthquake" was given by Mr. Frank A. Perret.

Six lectures on pure foods were delivered by Lewis B. Allyn of the chemistry department of the State Normal School at Westfield, Mass. This course, which is outlined elsewhere, was, like the one on geology, very well attended throughout and by people who intelligently profited by the opportunity. The results and the general attitude of the audiences indicated that just such courses are wanted and appreciated.

Affiliated Societies.

An especial effort has been made to attract such societies as have for their prime interest the consideration of subjects more or less related to natural history. During the year invitations to meet in the building have been extended to and accepted by the Springfield Volcanic Research Society, the Amateur Horticultural Society, and the Springfield Fish and Game Association. Added to those formerly making the museum a gathering place, this makes a total of seven organizations to which the museum extends hospitality.

An exceptionally interesting program is being followed by the Geological Society, which has become very active after several years of inactivity. This renewal of interest was brought about by the stimulus resulting from the museum's course on local geology and the supplementary excursions previously mentioned.

A unique organization is the Springfield Volcanic Research Society, which has recently become affiliated with the museum. This society came into existence as a result of Mr. Harold Ley's interest in the volcanic investigations being made by Mr. Frank A. Perret at Vesuvius, Stromboli, Etna, and Teneriffe. Mr. Perret's work at these stations and at Messina is too well known to need relating in this report. The society began as an informal organization of young busi-

ness men, whose interest and enthusiasm had been first aroused by Mr. Ley and stimulated by the coming of Mr. Perret to Springfield. Mr. Perret's work has for a considerable time been made possible by the generous support of these men. Later the members proposed to gain greater importance for their organization by enlisting the interest of experts everywhere, and making Springfield the international center for knowledge of volcanoes, earthquakes, and allied phenomena. Toward this end the society secured affiliation with the Museum of Natural History and began immediately to establish in this department a volcanic collection. Already Mr. Perret has provided for this a choice series of specimens of bombs, lava, and various minerals from the volcanic region visited, and added to these are maps and some of Mr. Perret's striking photographs and various publications. The museum had a choice lot of volcanic material from Iceland given by Mr. Waterman S. C. Russell; also photographs, relief maps, and specimens from Martinique by Mr. Nathan D. Bill. All put together make a very creditable showing, and much knowledge could already be gained from what is now on exhibition in our city. There is strong interest and enthusiasm back of the project which should do much to insure its success.

Another organization that has come to the museum this year is the Springfield Amateur Horticultural Society. Beginning with their annual meeting, which took the form of a pleasant social gathering in January, meetings have since been held once a month. It is hoped in the new home there may be renewed activity and that such fine exhibits as are a feature of work of kindred organizations in other cities may be seen in Springfield. The museum would lend itself admirably to such display, the basement being particularly adapted to undertakings of this character.

The Springfield Fish and Game Association have had several evening meetings in the building, and thus have been brought in many citizens who have not before seen the museum collections. The birds and the Wesson collection of fishes have proved particularly interesting on these occasions.

The other societies continue their activities, and altogether there is a great increase in the results accomplished and the museum is the center of many fine interests.

Catharine L. Howard Library.

A total of 92 meetings in the Catharine L. Howard Library was a result of activity of the geology class and other societies, and

whereas no more satisfactory place could be found for some of these, the too frequent occupancy for meetings is possible, and prohibits its designed use as a reference library, which use is also increasing.

Before another year it is hoped a larger room may be had exclusively for such meetings—a room where study collections, chairs, and tables can be assembled and left from session to session. A lantern permanently placed and ready for use will be of great assistance in carrying on the educational work, which is surely developing satisfactorily.

Publications.

For ten years there have been recorded on the bulletin board dates of observed bird arrivals within 10 miles of Springfield during the spring migration. This spring the museum has issued a handbook, "Birds of Springfield, Massachusetts, and Vicinity," in which is given an average date of arrival made from this 10-years' record. In this publication are listed winter birds or permanent residents as well as migrants. In all there are 150 species and of each some characteristic mark, motion, or note is given; the average date follows; then the breeding place, frequency, and size is noted; and blank columns for new records complete the page.

This publication has found a place in connection with the public school work and has proved popular generally, and it is hoped thus to stimulate a greater interest in birds and so promote a better understanding of their value to mankind through agriculture.

Material for two more bulletins is in preparation and it is expected that these may be issued during the coming year.

Cataloguing.

Dr. George Dimmock, who has since the beginning of the museum given to it service of the highest order, is now devoting his time exclusively to original scientific research. Consequently there has been a pause in the cataloguing of collections, which he planned and carried on so efficiently for several years. This work of recording is of prime importance in such an institution, and it is desirable that opportunity be found for its proper continuation.

Accessions.

In the larger museums to-day vast amounts are expended in sending out collecting expeditions. One great advantage of these is

the first-hand material and exact data obtained. Obviously, such undertakings are not possible for our museum at present, but to an unusual extent has it reaped benefits from personal expeditions and investigations by patrons. The history of the museum for the fifty years tells of such advantages, and the past year has materially increased such records.

Mr. Clarence B. Moore of Philadelphia, who has for many years made special studies of aboriginal mounds of the southern United States, has added to his previous gifts a collection of 38 rare pieces of pottery from mounds and burial places in Arkansas. The entire collection now constitutes one of the choicest sections in the department of archæology and ethnology.

Mr. Waterman S. C. Russell of this city brought back from Iceland last summer a valuable collection of minerals, rocks, and volcanic specimens. These added to Mr. Russell's gift of a year earlier make a fine Icelandic display.

The Springfield Volcanic Research Society's collection made by Mr. Frank A. Perret is another received directly from the investigator.

Mr. Luman Andrews is doing the museum a splendid service by providing a personally collected and prepared herbarium, most of which represents the flora of Springfield and vicinity. A total of 5,863 specimens have already been donated by this zealous worker, 1,245 coming in this year. With the herbarium is a card catalogue which furnishes data for "A Preliminary List of the Flora of Springfield, Massachusetts," which will soon be published by the museum.

From Mr. Gilbert H. Montague, formerly of Springfield, a good series of local geological specimens have been received.

To the display of Philippine woods, interest has been added by Mr. Frank C. Rice's gift of a collection of canes made from selected woods that grow on the Philippine Islands.

Mr. Walter H. Wesson opens a new department, that of fresh-water food and game fishes of New England, with a gift of 23 extra fine specimens. To complete this group about as many more species will be added, and all will be displayed in a 12-foot wall case, which is also the gift of Mr. Wesson. Through Mr. George H. Graham's interest in the subject, Mr. Wesson permitted Denton Brothers of Wellesley, Mass., to collect and prepare this series, which proves to be one of the most attractive in the building. A great improvement over the old-time fishes in alcohol are these lifelike objects, being in form and color particularly accurate.

Besides these mounted fishes there are live ones in a good-sized aquarium given by Mr. Nathan D. Bill, who each year makes some choice contribution to the museum's collections.

From Miss Mary A. Booth have been received desirable geological specimens, also noteworthy additions to the collection of colonial relics from the Samuel Colton Booth estate. Interesting pictures, hand-wrought and much prized household utensils, china, pewter pieces, and toilet articles add to the historic interest of the Booth exhibit.

Through the efforts of Mr. George S. Lewis the department of botany is frequently enriched, and to this department the Walter A. Brown herbarium, given by Mrs. Brown, makes an extensive addition.

Summary.

The museum has truly become an active agency, with its exhibitions, publications, coöperation with public schools, class and field work, lectures, special displays, encouragement of work of scientific organizations, bulletin notes of matters of current interest, and its regular daily work of perfecting its collections and general effort to attract and serve the public. The results, while comparatively meager, are vast considering the means, and a review of the year's work creates a sense of satisfaction and a greater realization of what is possible for the future.

Respectfully submitted,

GRACE PETTIS JOHNSON, *Curator.*

Outlines of Lecture Courses.

Ten lectures on "Local Geology" by Dr. Mignon Talbot:—

November 11 and 18: Original rock structure of this region; formation of the "Connecticut Valley Trough"; deposition of the Triassic sandstones and lava sheets.

December 2 and 9: Carving out of the present rock floor of the valley by streams.

December 16 and January 6: Work of the glacier in deepening the valley, lowering the ridges, and depositing loose material.

January 13 and 20: Retreat of the ice sheet, and formation of the stratified sands and clays with overwash of sands and pebbles.

January 27 and February 3: Subsequent stream work; development of terraces; work of the wind.

There was an interposed lecture on "Hypotheses of the Earth's Origin."

Six lectures on "Pure Food" by Lewis B. Allyn:—

December 7, 1910: Social value of food.

December 21, 1910: What may a man drink? (Upper Hall, Central High School.)

January 4, 1911: Kitchen tests for the purity of food products.

January 18, 1911: Use and abuse of food preservatives.

February 1, 1911: Social aspects of the Food and Drug act.

February 15, 1911: Lest anything too much be done.

Gifts to the Museum of Natural History.

MAY, 1910—MAY, 1911.

DEPARTMENT OF GEOLOGY.

- Miss Mary A. Booth. Diatomaceous earths.
Walter H. Chapin, M.D. Concretion from Chicopee Shales, Brightwood.
T. Nelson Dale, Pittsfield. Schist from summit of Mt. Greylock. Beach pebbles from mica schist, Washington, Mass.
Sherman F. Denton, Wellesley. Minerals from Nova Scotia, New Zealand, and Australia.
Gilbert H. Montague, New York City. Collection of Connecticut Valley geological specimens.
Mrs. Herbert Myrick. Agates and malachite.
William O. Parmenter. Collection of minerals.
Waterman S. C. Russell. Volcanic specimens from Iceland.

DEPARTMENT OF ZOOLOGY.

- Nathan D. Bill. Aquarium.
Walter H. Chapin, M.D. Nest of yellow warbler.
J. Alden Davis. Cockroaches.
Richards Emerson. Starfish.
William S. Fowler. Loon, from near Greenfield, Maine.
Edward S. Hitchcock. Goldfish.
Jacob Jacobs. Fox sparrow from Springfield.
Gilbert Randall, Chester, Vt. Northern red squirrel, Chester, Vt.
Miss Nellie M. Starr, Wilbraham. Woodcock.
Walter H. Wesson. Collection of New England fresh-water food and game fishes; also a 12-foot wall case for this collection.
Purchased. Brown-tail moths, collection of birds.

DEPARTMENT OF BOTANY.

- Luman Andrews, Southington, Conn. One thousand, two hundred and forty-nine herbarium specimens.
Mrs. Walter A. Brown. The Walter A. Brown herbarium.
Mrs. F. I. W. Burnham. English hawthorn tree from Long Hill.
William F. Gale. Section of sycamore from North Main street.
Robert O. Morris. Red pine.
Frank C. Rice. Canes made from hardwoods of the Philippine Islands.
Frank S. Smith. Lady's slipper (abnormal form) from Suffield, Conn.

DEPARTMENT OF HISTORY OF MANKIND.

- For Mrs. Horace F. Boardman. Handmade handkerchiefs of linen and piña cloth.
Miss Mary A. Booth. Extensive collection of colonial relics.
Family of Chief Justice Chapman. Letter signed by John Brown.
Miss E. S. Hawkes. Cast of tablet bearing the Assyrian account of the Deluge.
Clarence B. Moore, Philadelphia, Pa. Thirty-eight pieces of Southern pottery.

MISCELLANEOUS.

Mrs. Herbert Myrick. Collection of sea shells, curios, and minerals.

Mrs. Walter H. Wesson. Collection of geological and botanical specimens and curios.

Scientific publications have been received from:—

Robert A. Clark, M.D.

T. Nelson Dale of Pittsfield.

Chester T. Stockwell, D.D.S.

Names of several societies have been added to our list for exchange of publications.

Scientific Societies in Springfield.

Springfield Botanical Society.

- MRS. MARIA L. OWEN, Honorary President.
MISS FANNIE A. STEBBINS, President.
FRANK D. BISHOP, Vice-President.
MISS GRACE A. PUFFER, Recording Secretary and Treasurer.
MISS NELLIE A. DWIGHT, Auditor.
MISS S. ELIZABETH BOOTH, Corresponding Secretary and Curator of
Herbarium.
MISS ELIZABETH STEELE, Chairman of Executive Committee.
FRANK D. BISHOP, Chairman of Field Committee.
-

Springfield Geological Club.

- MISS FANNIE A. STEBBINS, President.
DR. WALTER H. CHAPIN, Vice-President.
MISS S. ELIZABETH BOOTH, Secretary and Treasurer.
MRS. WALTER E. JOHNSON, } Executive Committee.
ASHTON E. HEMPHILL, }
-

Springfield Zoological Club.

- DR. WALTER H. CHAPIN, President.
ROMAN A. CRANE, Vice-President.
MISS MABEL R. WATSON, Secretary and Treasurer.
MISS FANNIE A. STEBBINS, } Executive Committee.
DR. GEORGE DIMMOCK, }

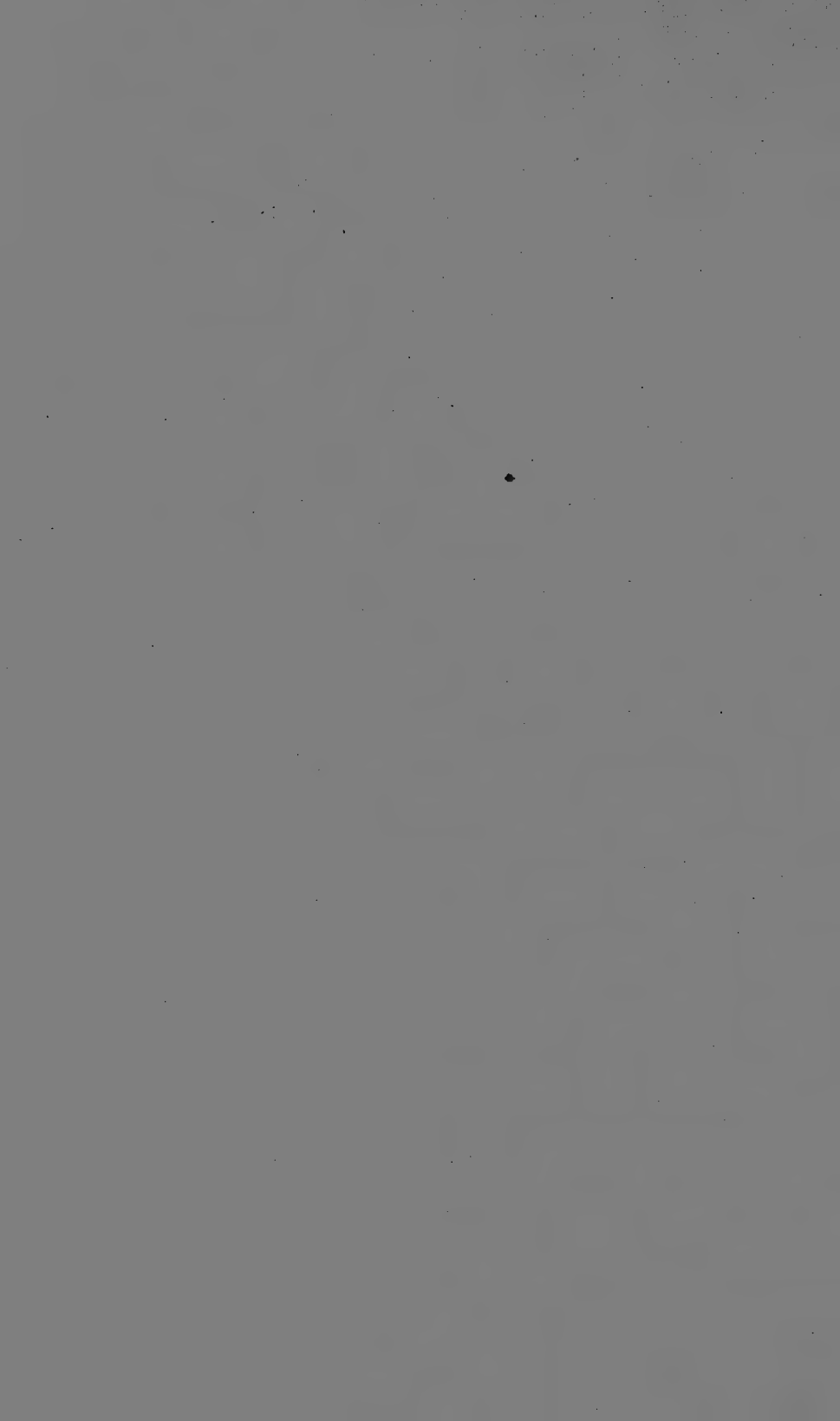


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REPORT OF THE MUSEUM
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UNIVERSITY OF ILLINOIS
14 SEP 1914

Museum of Natural History.

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Curator of the Museum of Natural History.

GRACE PETTIS JOHNSON.

Museum of Natural History.

Report of the Curator.

To the Members of the City Library Association the curator respectfully presents the eighteenth annual report of the Museum of Natural History:—

While the province of all natural history museums is the same in general, each to fulfill its opportunity must proceed in accordance with the needs of its community. Thus arises the importance of understanding these needs and meeting them.

Realization of what is wanted of our museum is not a recent development. Each year's consideration of what is sought makes stronger the conviction that its collections are equipment or tools that can only be put to the fullest use in connection with regular and sustained courses of instruction. The experiences of the past year wholly strengthen such conviction and invite a survey of what are our implements, to what extent are they used, and how can means be found to extend their uses.

The Catharine L. Howard Library.

The advantages of having an excellent reference library directly connected with the museum are obvious. Appreciation of its benefits constantly increases. Notable additions during the past year, such as the New International Encyclopedia; published results of scientific research in astronomy, geology, botany, and zoölogy, put into the hands of all, some of the best to be had along these lines, and the recent gift of \$1,000 from Miss Jessie Fellowes Tapley, an alumna of the school, enlarges such possibilities. The founders of the library welcome its freest use, and added to this is the most cordial helpfulness from the city library and its staff which makes complete the equipment for reference work.

Collections.

Healthful growth in every department is steadily going on and in the botanical section during the past year have particularly noticeable results been achieved. The association has a great benefactor

in Mr. Luman Andrews of Southington, Conn., whose first gifts were received in 1898. Since that time mention has frequently been made of additions from him. To-day as a result of his endeavors our museum may claim the distinction of possessing an herbarium that stands among the finest in Western Massachusetts. Mr. Andrews has collected, prepared, and given 7,648 specimens of plants of this region, and especially collected and catalogued 723 plants growing within the limits of this city. While this completes the bulk of the work needed to make the collection represent our flora, Mr. Andrews is still laboring indefatigably to perfect it. What such accessions provide for the present generation, it is needless to say; their interest and value to the changed Springfield of the future may be inferred. With this collection Mr. George S. Lewis's systematically growing department of woods, fibers, seeds, and by-products furnishes equipment the importance of which is apparent.

By two other collectors, Mr. Frank A. Perret and Mr. Waterman S. C. Russell, volcanic and geological collections are keeping pace with the others. Mr. Perret for the Springfield Volcanic Research Society has presented material from Vesuvius and Kilauea this year, and Mr. Russell has added to his previous gifts of specimens from Icelandic volcanoes, until our volcanic exhibit may well take its place as one of importance and rarity.

Mr. Russell's gift of choice minerals is enriching another department and supplying specimens from comparatively inaccessible regions. For illustrative purposes and for study collections to be used in connection with geological courses here are type specimens.

For another department the same kind of work is being done by Mr. Clarence B. Moore of Philadelphia, an eminent collector of archæological and ethnological material from aboriginal mounds of the southern states. Ornaments, pottery, and various implements have recently been received, and with previous accessions constitute a collection of exceptional value. The space available for the collections in this department is already less than a third of what is actually needed for their display.

For the colonial section pictures of early Springfield have been given by Mrs. William B. Walker, whose gift also includes other relics. In the department of zoölogy, Mr. Walter H. Wesson has increased his collection of New England fresh water food and game fishes to an extent that makes it more than ever a distinctive feature of the museum. This exhibit appeals to a part of the public that apparently has not been reached by any other.

Another section, that of birds, is to be vastly enriched by the addition of selected series of North American birds from the famous bird-skin collection of Dr. Jonathan Dwight, of New York, one of the leading ornithologists of this country, whose collection contains about 30,000 specimens. Additions from this authoritative source, with the well-mounted birds and bird groups that have previously been supplied by Mr. Gurdon Bill, Mr. Robert O. Morris, Mr. Robert M. Wallace, and others, establishes a bird collection far beyond what is ordinarily possessed by the smaller museums, and furnishes abundant material of the best quality for study purposes.

Donors.

Glancing at the list of donors one is impressed with the generosity of benefactors from various parts of the country, who are voluntarily building up our collections. In the past year alone are recorded gifts that represent extensive scientific investigations of eminent workers.

Lectures, Class Work, and Excursions.

Present limitations are the only regrettable features connected with this work. It is the unflinching appreciation of courses provided, and the earnestness with which they are pursued, that brings conviction of what should go hand in hand with the possession of such superior equipment so generously supplied.

The excellent course in botany by Prof. A. Vincent Osmun of the Amherst Agricultural College was followed by requests for continuation of the same subject another year. A course in astronomy has several times been suggested.

The bird talks by Miss Fannie Stebbins and the lecture by Prof. C. F. Hodge of Worcester gave much satisfaction to good-sized audiences of bird lovers.

A theater full of delighted children heard the illustrated lecture on "Wild Life in Action," so generously provided by Mr. Nathan D. Bill and Mr. Richard E. Follette, the lecturer.

Class Room.

A larger class room equipped with a good stereopticon lantern has recently been made available. This is progress in the right direction, and in a measure supplies what has been much needed. Another room in the Blake house has made possible the establish-

ment and more general use of the psychological apparatus secured by the museum several years ago and until this spring used exclusively in the Central High School. This apparatus is now placed, and preparations made for interesting experimental work under the direction of Dr. George E. Dawson for the coming year. The possession of a lantern opens up a number of possibilities and outlines for several series of illustrated lectures are already prepared for the autumn.

Co-operation with Public Schools.

Close relationship continues between the museum and the public schools. Results of school gardening are displayed in the building. The autumn exhibit of corn and potatoes raised by the children was commendable and brought pupils with their parents to the building. For the best products the museum awarded prizes and so encouraged future efforts.

Class work and lectures provide instruction that teachers use in their daily work, and special exhibits, planned to supplement school work, are closely observed by teachers.

Societies.

Activity among affiliated societies has been gratifying. The newly formed bird club now has a membership of about 100. This club is named after Dr. J. A. Allen of New York, who was formerly of Springfield and identified with this museum. Besides the indoor work frequent field meetings have been enthusiastically attended.

Field work of the geological society members results in specimens from local geological formations being brought in for consideration at following meetings.

The renewed activity of the Springfield Amateur Horticultural Society, since affiliation with the museum, is another cause for congratulation, and is met with public approval. Membership is increasing, helpful talks and discussion of horticultural subjects are regularly furnished, and a good beginning has been made for a series of flower shows. For this purpose the museum is finding ways to adapt itself.

Attendance.

There is tangible evidence of the interest the museum has for the public. There is quick response to notices of special attractions or

exhibits. An estimate of attendance indicates that about 40,000 people came to the building the past year.

The exact average of Sunday attendance is 122. Here is an opportunity. If a good-sized lecture room conveniently joined the main exhibition rooms, many of these Sunday visitors who are at leisure and in a mood to be interested, would gladly take advantage of brief educational talks on the miracles of nature and science. It is but a comparatively small increase of funds for extension and additional assistance that will make it possible to reach out in these practical ways.

Summary.

The exceptional features recorded for the year are large additions to the collections, formation of new natural history societies and revival of old ones, good courses of lectures, more than the usual number of special exhibits, and the addition of a lecture room with apparatus. Much has been done in readjusting and systematizing material, and a better understanding of ways to reach the public has been acquired. With this better preparation and with equipment of superior quality, only funds are needed for even greater accomplishment and service.

Respectfully submitted,

GRACE PETTIS JOHNSON, *Curator.*

Gifts to the Museum of Natural History.

MAY, 1911—MAY, 1912.

DEPARTMENT OF GEOLOGY.

- Walter H. Chapin, M.D. Glacier-marked Chicopee shale from Springfield, and sandstone with carbonized vegetable matter from Indian Orchard.
- George M. P. Holt. Coquina from east coast of Florida.
- William O. Parmenter. Collection of minerals.
- Frank A. Perret for the Springfield Volcanic Research Society. Collection of volcanic specimens from Vesuvius and Kilauea in Hawaii.
- George Dwight Pratt. Cross section of column of Chicopee shale from shaft made for plunger of elevator in the tower of Municipal group. Taken December 8, 1911, from 210 feet below Court Square.
- Waterman S. C. Russell. Collection of volcanic specimens, fossils, and minerals from Iceland.

DEPARTMENT OF ZOOLOGY.

- Edward Chapin. Snails for the aquarium.
- David Grimshaw. Barn swallow's nest.
- Mrs. Eleanor Hale, from the James Tyler Ames estate in Chicopee. Whalebone, turtle shells, and sea feather.
- Milan E. Hawkins. Shell of nine-banded armadillo; also starfish and seashells.
- Mrs. Warren T. Hitchcock. Collection of foreign birds.
- Robert O. Morris. Human bones, possibly Indian, from Longmeadow.
- Leslie A. Newell. Hummingbird's nest.
- William C. Newell. Tortoise shell turtle.
- W. Thornton Parker, M.D. Great horned owl, and prairie dog from New Mexico.
- Gertrude Robinson. One butterfly.
- Walter H. Wesson. Extensive additions to the Wesson collection of New England fresh-water food and game fishes, including a Chinook salmon from Lake Sunapee, N. H.

DEPARTMENT OF BOTANY.

- Luman Andrews. Extensive additions to the Luman Andrews herbarium, and card catalog of Springfield plants.
- Mrs. Eleanor Hale, from the James Tyler Ames estate in Chicopee. Brazilian gourd.
- Kibbe Brothers Company. Cocoanuts of unusual size.
- Miss Claribel H. Smith. Collection of pressed plants.
- Peter Smith. Fungus growth.

DEPARTMENT OF HISTORY OF MANKIND.

- Clarence B. Moore, of Philadelphia. Collection of pottery, jars, ear ornaments, and discs made from fragments of pottery, from mounds in Arkansas.
- John F. O'Connor. Arrow point from Springfield.

MISCELLANEOUS.

- Mrs. L. A. Atwood. Miniature Italian water buckets.
- W. E. Dickinson. Picture of General Lafayette's house at Moodna, N. Y.
- George S. Lewis. Series of pictures of machines used in spinning and weaving.
- Mrs. William B. Walker. Collection consisting of pictures of early Springfield, colonial relics, coins, seashells, and birds' eggs, also 19 colored plates of birds by Alexander Pope, Jr.

Scientific Societies in Springfield.

Springfield Botanical Society.

MRS. MARIA L. OWEN, Honorary President.
MISS FANNIE A. STEBBINS, President.
MISS WINIFRED SANBORN, Vice-President.
MISS GRACE A. PUFFER, Secretary and Treasurer.
MISS NELLIE A. DWIGHT, Auditor.
MISS ELIZABETH J. STEELE, Chairman of Executive Committee.

Springfield Geological Club.

MISS FANNIE A. STEBBINS, President.
DR. WALTER H. CHAPIN, Vice-President.
MISS MABEL A. COBB, Secretary and Treasurer.
MRS. GRACE PETTIS JOHNSON, }
ASHTON E. HEMPHILL, } Executive Committee.

Allen Bird Club.

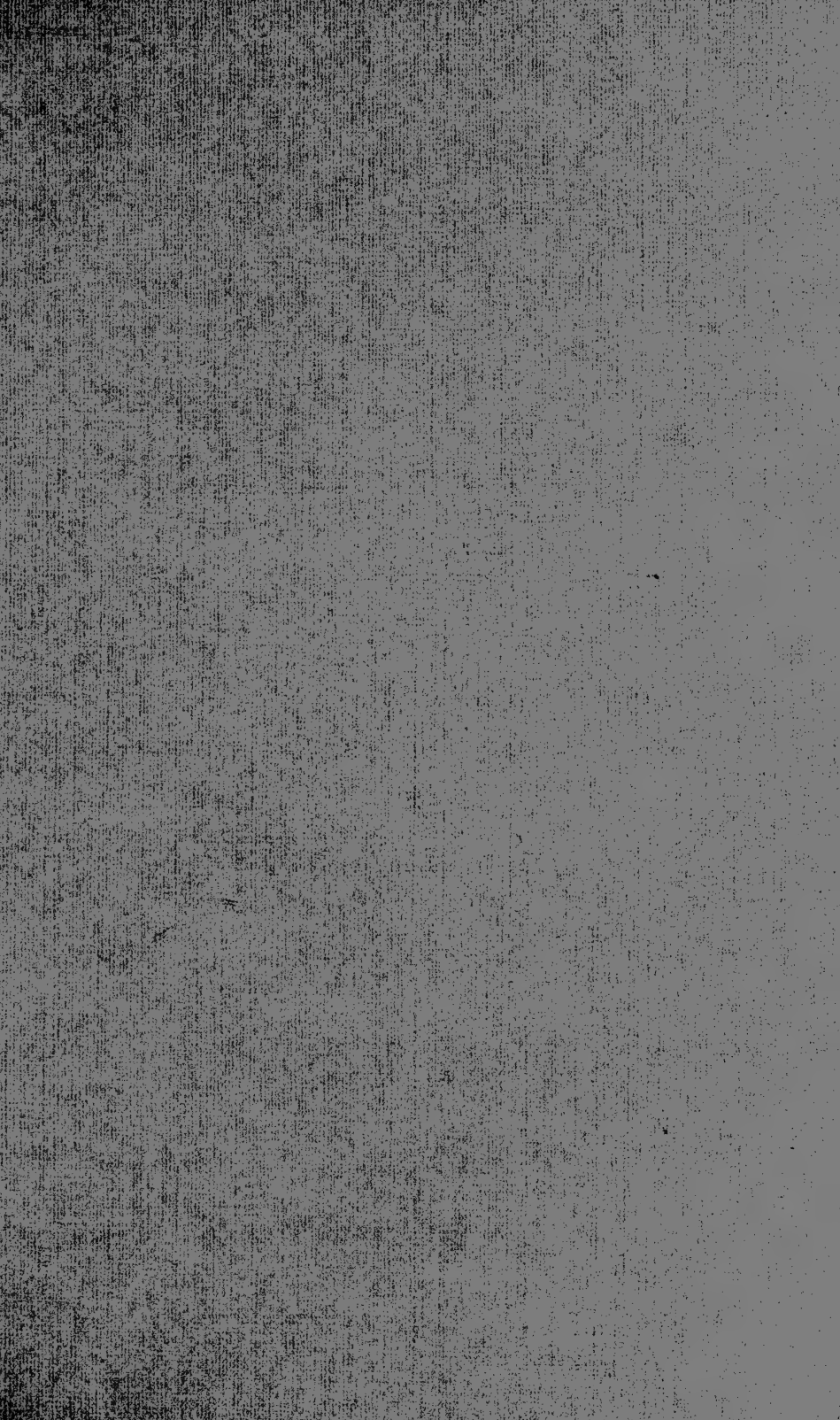
REV. HERBERT E. THAYER, President.
CHARLES H. HARDIE, Vice-President.
MISS EFFIE M. WILCOX, Secretary-Treasurer.
GEORGE B. AFFLECK, }
MISS RACHEL PHELPS, } Executive Committee.
MISS REBECCA L. HARDING, }

Springfield Volcanic Research Society.

NATHAN D. BILL, President.
HERBERT P. MYRICK, Vice-President.
HAROLD A. LEY, Treasurer.
ASHTON E. HEMPHILL, Assistant Treasurer.
ALLEN L. APPLETON, Clerk.
FRANK A. PERRET, Volcanologist.
WATERMAN S. C. RUSSELL, Secretary.
DR. WALTER H. CHAPIN, Curator.

Springfield Amateur Horticultural Society.

ANDREW J. GRIFFIN, President.
MRS. A. C. BARKER, First Vice-President.
C. L. SIMONS, Second Vice-President.
MRS. GRACE PETTIS JOHNSON, Secretary.
JOSEPH AUMER, Treasurer.





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Sp8
1912/13

UNIVERSITY OF THE
UNIVERSITY OF ILLINOIS
14 SEPT 1914

**REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASS., MAY
NINETEEN HUNDRED THIRTEEN**

**PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING
MAY FIRST, NINETEEN HUNDRED THIRTEEN**

507
Sp8
1912/13

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS
14 SEP 1914

Museum of Natural History.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21; 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

Curator of the Museum of Natural History.

GRACE PETTIS JOHNSON.

Museum of Natural History.

Report of the Curator.

To the Members of the City Library Association the curator respectfully presents the nineteenth annual report of the Museum of Natural History:—

Extension of work along scientific lines has this year been in psychology. By providing apparatus and a room in the Blake house, it has been possible for the association to further Dr. George E. Dawson's investigations of causes that lead to children's failures in their school work. Such investigations in Springfield, undertaken at the request of Superintendent of Schools, Dr. James H. Van Sickle, and gratuitously by Dr. Dawson, began last October and have continued through the year. Additional apparatus, provided by the school department, has been installed in what is now a fairly well equipped psychological laboratory. Here, by appointment, teachers or parents bring children who present problems of any kind that center in their education—whether these problems grow out of mental backwardness, precocity, or specialization of ability. By physical and mental tests three lines of inquiry are pursued: first, to determine the children that have mental defects of such character as to make them unfit for the public school work, and to indicate what care and training should be given them; second, to determine the children whose failures are due to some physical handicap and to suggest such home or school regime, or such medical treatment, as may seem advisable; and, third, to determine the children whose mental or nervous constitutions are not suited to the ordinary school curriculum, and to suggest what modifications can be made in their behalf. The children tested this year are as follows:—

(a) School children referred by teachers	81
(b) School children referred by parents	5
(c) School children referred by probation officers	3
Total	<hr/> 89

With the year's work two free public lectures have been given, with the general subject, "Human Minds; Their Different Qualities and Their Needs." The attendance at these indicated a keen interest in

the subject of vocational guidance and the whole modern attempt to apply science to the arts of life. This work, which enters into the policy of co-operation with the public schools, is to be continued and extended.

Co-operation with the Schools.

Other forms of co-operation are class work, nature study exhibits, teachers' meetings, and preparation of study collections.

Aside from the coming of classes to the museum for general observation, thirty have come with their teachers for regular teaching exercises, or special instruction in the following subjects: physical geography, geology, botany, physiology, ornithology, and drawing. Most of the classes have come from the high schools, and during recitation periods, the various divisions frequently using the museum as a school for the full session from 8:30 to 1 o'clock.

Such use of the museum has this year been carried to a greater extent and conducted more successfully than in any previous year.

For two weeks in January there was the annual exhibition of work done in the nature study department of the public schools. It was an extensive display showing good results of work by 7th and 9th grade pupils in forestry, civic and domestic hygiene, and local geology. This exhibit noticeably increased the attendance and attracted school superintendents and teachers from several cities.

Other co-operative features are additions to study collections of minerals made up from duplicate material and sent to the grades, and occasional teachers' meetings at the museum under the direction of the supervisor of nature study, who also interests teachers and pupils to become exhibitors at the monthly flower shows.

Another edition of the museum's Bird Book, with a few additions to the list of birds, has been printed this year. The 1400 copies issued two years ago were eagerly sought and since the new supply of 1500 came in early March, 225 copies have been sold. This little manual is still regularly used in the schools.

Lectures and Meetings of Societies.

One hundred and eleven meetings of various organizations have been held at the museum or Blake Hall since May 1st, 1912.

The advantages of having a lecture room and stereopticon were not overestimated in last year's forward look. In this place for assembling, thirty lectures on scientific subjects have been given,

and at practically all of these the new lantern has been used. The room is well adapted to such uses and the stereopticon is an excellent instrument easily operated by home talent.

The lectures included two courses, one of eleven in botany, which was a continuation of last year's work directed by A. Vincent Osmun, of the Massachusetts Agricultural College; and another of six lectures on practical uses of electricity by Howard C. Kelly of the Central High School. They were well attended and wholly satisfactory.

The Allen Bird Club has many times during the year filled the room with enthusiastic audiences.

The Geological Society continues investigations of local geological history, and for this and other affiliated organizations no effort is spared to make available the many advantages that the museum can offer.

Flower Shows.

Perhaps none have been more responsive than the Springfield Amateur Horticultural Society. Accepting the museum's hospitality a year and a half ago, the society has effected a revival of its flower shows which were once famous events in Springfield. During 1912 five were held in the basement of the building, which had previously been used but for storage purposes. The place has proved very satisfactory, as have these first flower displays which grew in size and quality as they progressed. The work to be continued this year is undertaken with renewed interest. Although members have worked zealously to bring to pass this revival of interest, the Springfield Republican is the true source of inspiration, following the society's first announcement of plans with an offer of free advertising and cash for prizes to the extent of \$140.00 for the season. For 1913 the amount offered is \$200.00, and it is expected that as a result of this increase and of the impetus given by last year's successes, the exhibition room will be filled with flowers for the shows that are made after gardens are well established.

Attendance.

These attractions have brought many people to the museum. Increasing duties have made it practically impossible to keep exact statistics of attendance, but a careful estimate indicates an increase over the past record of 42,000 persons. The exact average of Sunday attendance is 141 persons, an increase over last year's average, which was 122.

Gifts.

Each accession from Mr. Clarence B. Moore of Philadelphia gives renewed cause for congratulation that the museum is favored by a donor of such choice material. The gift received in July must be of the finest material this eminent collector has taken from aboriginal mounds of the southern states. Various implements, amulets, pendants, beads of shell, slender pins of bone, and ear plugs of earthenware, are of such unusual fineness that this collection, it would seem, must contain material rarely equaled.

To Mr. Luman Andrews of Southington, Conn., we acknowledge with appreciation this year's addition of over 1500 herbarium specimens, which, added to previous gifts, makes a total of 10,000 carefully chosen representatives of our flora. This accession consists of pressed plants collected and prepared by a thorough botanist who for years has given lavishly of his time and efforts to secure for this museum a herbarium which ranks with the best in New England.

Another important donation has been made by Mr. Frank A. Perret for the Springfield Volcanic Research Society. The set of 118 photographs comprising this gift are Mr. Perret's excellent work for which he was awarded a gold medal at the 1911 International Exhibition at Rome. As a complement of the museum's unique volcanic exhibit the value of these photographs is inestimable.

The museum is fortunate indeed to have enlisted the interest of so notable an ornithologist as Dr. Jonathan Dwight, Jr., of New York, from whom has been received the first installment of selected series of North American birds from the donor's rare collection. In this gift are 158 specimens, which with following accessions will be placed in metal cases, also the gift of Dr. Dwight.

Miss Mary A. Booth has placed with the Samuel Colton Booth collection some of Arizona's best specimens of silicified wood.

Mr. Walter H. Wesson's collection of New England fishes is a little nearer perfection by the addition of a few more choice specimens; and from Mr. Nathan D. Bill a miscellaneous collection, consisting of Japanese models and domestic articles, with Indian baskets and implements, furnishes important additions to several departments.

These gifts for the year add to the museum a large number of specimens of superior quality for display. Where to display them has become a problem. For several years a process of substitution has in a measure met the need of space. Now, however, even by such means it is increasingly difficult to make valuable material available for pub-

lic attention. These conditions point to the need of considering expansion which will soon become a necessity.

The Catharine L. Howard Library.

This spring celebrates the 50th anniversary of the founding of the Howard School for girls in this city. This school during its twenty-seven years under direction of Miss Howard, left a strong impress on the lives of many young women who, fourteen years ago, established in the Science building, the Catharine L. Howard Memorial Library of Science, a well chosen tribute to their teacher "in gratitude for the beauty of her character and the inspiration of her life."

This reference library, the advantages of which are free to all persons, meets a real need and is of untold public benefit.

Respectfully submitted,

GRACE PETTIS JOHNSON, *Curator.*

Gifts to the Museum of Natural History.

MAY, 1912—MAY, 1913.

DEPARTMENT OF GEOLOGY.

- Miss Mary A. Booth. Specimens of silicified wood, and "Arizona rubies" from Adamana, Arizona.
James E. Chapin. Collection of minerals.
Walter H. Chapin, M. D. Collection of fossils from Springfield, Holyoke, and vicinity.
Miss Ruth E. McIntire. Minerals from Dakota.
Miss Eva Louise Miller. Volcanic specimens.
Francis Napolitan. Fossils from Ohio.

DEPARTMENT OF ZOOLOGY.

- J. Alden Davis. Short-tailed shrew, Springfield.
Francis D. Foot. Canada jay, Maine.
George H. Graham. Fish for aquarium.
Robert O. Morris. Additions to the collections of mounted birds.
Marion Naylor. Goldfish for aquarium.
Sherwood Tracy. Northern flicker, Springfield.
Walter H. Wesson. Trout from Moosehead Lake, and muskalonge from Lake Champlain.
Mrs. Juvenea Williams. Alligator skin.

DEPARTMENT OF BOTANY.

- Luman Andrews, Southington, Ct. 1519 herbarium sheets.
Walter H. Chapin, M. D. Herbarium specimens.
Dr. Jonathan Dwight, Jr., New York. Extensive collection of bird skins.
George M. P. Holt. Collection of Florida woods.
Mrs. Isabel E. Kelly. Growing plants.

DEPARTMENT OF HISTORY OF MANKIND.

- Nathan D. Bill. Collection of Indian baskets, Japanese and other curios.
William H. Fewell, Cambridge, Mass. Historical documents.
Clarence B. Moore, Philadelphia, Pa. Collections from aboriginal mounds of southern states, containing implements, ornaments, and human bones.
Robert O. Morris. Indian implements from the vicinity of Springfield.
William J. Quilty. Fragment of wood from Battleship Maine.
Mrs. J. E. Witherell, South Worthington, Mass. Colonial relics.

MISCELLANEOUS.

- Frank A. Perret for the Springfield Volcanic Research Society. 118 photographs illustrating volcanic activity.

Scientific Societies in Springfield.

Springfield Botanical Society.

- MISS FANNIE A. STEBBINS, President.
MISS WINIFRED SANBORN, Vice-President.
MISS GRACE A. PUFFER, Secretary and Treasurer.
MISS NELLIE A. DWIGHT, Auditor.
MISS ELIZABETH J. STEELE, Chairman of Executive Committee.

Springfield Geological Club.

- MISS FANNIE A. STEBBINS, President.
DR. WALTER H. CHAPIN, Vice-President.
MISS A. MABEL COBB, Secretary and Treasurer.
MISS MARY CLUNE,
GEORGE B. AFFLECK, } Executive Committee.
MISS SARA E. CHASE, }

Allen Bird Club.

- GEORGE B. AFFLECK, President.
JOHN F. SIMONS, Vice-President.
MISS EFFIE M. WILCOX, Secretary-Treasurer.
MISS GRACE A. PUFFER,
MISS IDA ROBBINS, } Executive Committee.
CHARLES H. HARDIE, }

Springfield Volcanic Research Society.

- NATHAN D. BILL, President.
HERBERT P. MYRICK, Vice-President.
HAROLD A. LEY, Treasurer.
ASHTON E. HEMPHILL, Assistant Treasurer.
ALLEN L. APPLETON, Clerk.
FRANK A. PERRET, Volcanologist.
WATERMAN S. C. RUSSELL, Secretary.
DR. WALTER H. CHAPIN, Curator.

Springfield Amateur Horticultural Society.

- J. ALDEN DAVIS, President.
ANDREW J. GRIFFIN, First Vice-President.
CHARLES CANDRIAN, Second Vice-President.
MRS. GRACE PETTIS JOHNSON, Secretary.
JOSEPH AUMER, Treasurer.



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Sp8

1913/14

REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASS., MAY
NINETEEN HUNDRED FOURTEEN

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING APRIL
THIRTIETH, NINETEEN HUNDRED FOURTEEN

PROPERTY OF THE CITY LIBRARY

OCT 14 1916

Museum of Natural History.

In the Science Building.

Hours of Opening.

THE MUSEUM OF NATURAL HISTORY.—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21; 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE.—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

Curator of the Museum of Natural History.

GRACE PETTIS JOHNSON.

Museum of Natural History.

Report of the Curator.

To the Members of the City Library Association the curator respectfully presents the twentieth annual report of the Museum of Natural History:—

This year marks an epoch in the museum's history. Twenty years ago a beginning was made toward preparing, for display in the new Art Building, the natural history collection then housed in the old library building. It was the commencement of a period of rapid growth, and five years later came the museum's important event—establishment in a home of its own. In this new building growth has continued, activities have developed, and fruitful efforts have been made to generally extend the usefulness of an institution which is to-day a conspicuous factor of the city's advantages. During the past year gifts of importance have been received. The addition of these to a collection which last year seemed to fill the building brings nearer the time when you who are mindful of the museum's needs will provide for its progress. A recent appraisal of these collections commercially places the value of the whole plant at about \$100,000. For appraising the educational worth, this report of the museum's work for the past twelve months may serve as a basis.

Gifts.

Your attention has already been called to the inestimable value of exhibits which have been collected and given by notable scientific investigators. It is cause for congratulation that such interest continues, and is evinced by the addition of more and even choicer material from these unquestionably authoritative sources.

Last year's report announced the receipt of a first installment from the famous Dr. Jonathan Dwight, Jr., collection of bird skins. Since that announcement two other larger accessions have been received and now all together form an important series to which Dr. Dwight states further additions will be made.

Mr. Clarence B. Moore of Philadelphia and Prof. Harris B. Wilder of Smith College have added extraordinary specimens to the department of archæology and ethnology.

Mr. Luman Andrews of Southington, Conn., year after year enthusiastically collects and prepares material for an herbarium which does him credit and is a source of pride to the City Library Association.

Mr. Robert O. Morris is systematically adding to the collections of birds which bring to our museum men, women, and children from our own and adjoining cities and towns.

Mr. Waterman S. C. Russell on a fourth famous trip to Iceland secured specimens that make our volcanic exhibit exceptional, and to this section Mr. Frank A. Perret, for the Springfield Volcanic Research Society, has recently shipped from Japan a case of specimens which are sure to be of rare interest and value.

To others whose gifts help perfect our collections and whose names appear elsewhere in this report, the museum makes most grateful acknowledgment.

A Notable Giver.

Since the close of the fiscal year the museum has lost one of its greatest benefactors and a true friend. Mr. George S. Lewis, Jr., a life member of the City Library Association and one devoted to its every interest, died suddenly May 14, 1914, and with his going the museum suffers a keenly felt loss. He leaves as a monument worthy of pride the collections of woods, fibers, seeds, and other botanical specimens which form so large and important a part of the museum's exhibit. Products of the earth were indeed miracles to this great collector and to follow and illustrate the processes by which they were transformed to meet the needs of man was an absorbing interest. Even greater than this, however, was his delight in the thought that his wonderful collection was used by the people.

Since Mr. Lewis's death his sons, Dr. Elisha S. Lewis of Princeton and Mr. Dudley P. Lewis of New York City, in fulfillment of their father's wishes, have transferred to the museum extensive additions to the collections already installed. This includes a rare series of lantern slides illustrating North American trees. These were given personally by Mr. Dudley P. Lewis. To the Commercial High School of this city, in which Mr. Lewis had recently become especially interested, the sons have donated much prized material which will greatly aid in the teaching of commercial and physical geography.

Only after interpretation by means of lecture courses and other teaching exercises can that which has been so painstakingly collected

and displayed serve its best purposes. It may therefore be well to consider for a moment how the museum serves as interpreter.

Classes.

Steady development and expansion of the co-operative work with the schools is a feature of the past year's records. Thirty-nine classes assembled with their teachers at the museum and nearly one thousand pupils received instruction in geology, physical geography, physiology, ornithology, and botany. For these teaching exercises, which occasionally occupy the full session for the day, sets of specimens are carefully selected for illustrative purposes. Besides this, pupils are regularly sent by their teachers to do definite work. With this directed use of the collections there are by no means infrequent voluntary visits made by great numbers of children, who study the exhibits with an interest and intelligence which speak well for the training received.

Psychological Laboratory.

The museum is continuing to co-operate with the schools in the work of Dr. George E. Dawson by supplying rooms and other facilities for the psychological laboratory.

Lectures.

Incidental to such work two lectures were given during the year by Dr. Dawson under the auspices of the museum. The subject was "The Application of Psychology to Vocational Guidance of Children and Youth."

Single lectures on various subjects and a course on local geology followed by field work have been received with appreciation. The geology course, given by Miss Fannie A. Stebbins, consisted of eight well attended lectures. For these, specimens from the museum collections were used for illustrative purposes and displayed for reference after lessons were given. A set of lantern slides made for this series forms a loan collection which has been in constant use in the schools where the geology of the Connecticut Valley has been taught much as it was presented at the lectures in the museum's course. The season closed with a choice lecture on "The Dawn of Art" by Dr. George Grant MacCurdy, curator of archæology at Yale University.

Affiliated Societies.

Aside from lectures directly arranged for by the museum there have been given in its class rooms, through the activity of societies, two or

more talks each month on natural history subjects. A total of eighty-seven meetings have been held and for many of these the lantern in Blake Hall has proved indispensable. Officers of these societies include public school teachers, college instructors, supervisors, the city forester, and park florist; and the intermingling of all of these in various organizations naturally results in the work of each society being planned to accomplish the common object of co-operation with the general educational system of our city.

Fruit and Flower Shows.

Nothing undertaken at the museum has attracted more people than have the flower shows conducted by the Springfield Amateur Horticultural Society. Four were held during the past season and the Springfield Republican's gift of \$200 in prize money was contested for with enthusiasm by children and adults. The 1913 series surpassed the 1912 shows and the *new* feature of fruit and vegetable displays was added by the Hampden County Improvement League. Results were a decided credit to the societies and to the museum. It is hoped that some provision will be made to assure the permanency of such work. A fund from which an income of even \$150 or \$200 could be used for prizes would accomplish this, and result in permanently fostering an interest so wholesome and desirable.

By the consolidation of this and other kindred societies the Hampden County Horticultural Society has recently been formed. It is felt that this combination will produce a stronger organization from which even better results may be expected.

Attendance.

All of these activities bring to the museum greater numbers of visitors. The flower shows attracted hundreds of people and although it has been practically impossible to keep exact records, there has surely been a decided increase over the past estimate of 42,000 per year. Sunday continues to be the popular day, bringing an average attendance of one hundred and thirty-three people to enjoy the exhibits.

The Catharine L. Howard Library.

At the fiftieth anniversary of the founding of the Catharine L. Howard school for girls which was held in the Howard Memorial Library early in the year, the abiding influence of a strong personality was impressively felt. For this reunion hundreds of women came together and in the

room so fittingly dedicated to the memory of a beloved and worthy teacher they revived associations of school days. It was a delightful occasion consisting of rare hospitality and renewal of friendships and memories.

This association has recently provided for the museum a children's table and case which proves a most desirable extension of the library's helpfulness. By the changing exhibits in the case and related stories in books at hand on the substantial table, many restless children are induced to spend profitable half hours learning something worth while.

Summary.

Thus the year closes, and a review of what has been accomplished to make the museum of practical interest and value to the public brings the conviction that the utmost has been done with present means, and opportunity to extend the institution's usefulness along these well-tried lines is awaited with eagerness.

Respectfully submitted,

GRACE PETTIS JOHNSON, *Curator.*

Gifts to the Museum of Natural History.

MAY, 1913—MAY, 1914.

DEPARTMENT OF GEOLOGY.

- Gurdon Bill. Meteoric stone from Becket.
Miss Grace Miller. Copper ore from Calumet and Hecla mine.
Waterman S. C. Russell. Volcanic material from Iceland.
W. E. Watts. Fossil from Giant's Causeway, Ireland.

DEPARTMENT OF ZOOLOGY.

- Dr. Jonathan Dwight, Jr., New York City. Extensive addition to collection of bird skins.
Frank D. Foot. Beaver teeth.
Mrs. William Horne. Birds and mammals.
Dr. Seth A. Lewis (with Robert O. Morris). Whistling swan.
Robert W. Metcalf. Two southern red squirrels, Longmeadow.
Robert O. Morris. Additions to the collection of mounted birds.
Miss Avis Morison. Nest of trapdoor spider, La Jolla, Cal.
Harry D. Pease, Worthington, Mass. Collection of mounted birds.
Raymond B. Shattuck. Butterflies and beetles.

DEPARTMENT OF BOTANY.

- Dudley P. Lewis, New York City. Lantern slides illustrating North American trees.
George S. Lewis, Jr. Exhibit of cocoa and chocolate.
Luman Andrews, Southington, Conn. 338 herbarium sheets.

DEPARTMENT OF HISTORY OF MANKIND.

- Clarence B. Moore, Philadelphia, Pa. Objects from aboriginal mounds in southern states.
Mrs. James Parker. Bellows.
Mrs. Henry M. Phillips. Indian implements.
Miss Carrie Spencer. Picture of John Brown.
George Dwight Pratt. Medal commemorating dedication of Springfield Municipal Group.
Prof. Harris H. Wilder, Smith College. Casts representing restoration of Indian facial features over skull.

Scientific Societies in Springfield.

Springfield Botanical Society.

MISS FANNIE A. STEBBINS, President.
FRANK D. BISHOP, Vice-President.
MISS GRACE A. PUFFER, Secretary and Treasurer.
MISS NELLIE A. DWIGHT, Auditor.
MISS ELIZABETH J. STEELE, Chairman of Executive Committee.
MISS ELIZABETH BOOTH, Corresponding Secretary.

Springfield Geological Club.

MISS FANNIE A. STEBBINS, President.
DR. WALTER H. CHAPIN, Vice-President.
MISS A. MABEL COBB, Secretary and Treasurer.
MISS MARY CLUNE, }
GEORGE B. AFFLECK, } Executive Committee.
MISS SARA E. CHASE, }

Allen Bird Club.

GEORGE B. AFFLECK, President.
JOHN F. SIMONS, Vice-President.
MISS EFFIE M. WILCOX, Secretary-Treasurer.
MISS GENEVRA SWAZEY, }
MR. FRED ELDRED, } Executive Committee.
MRS. EMILY LEONARD, }

Springfield Volcanic Research Society.

NATHAN D. BILL, President.
HERBERT P. MYRICK, Vice-President.
HAROLD A. LEY, Treasurer.
ASHTON E. HEMPHILL, Assistant Treasurer.
ALLEN L. APPLETON, Clerk.
FRANK A. PERRET, Volcanologist.
WATERMAN S. C. RUSSELL, Secretary.
DR. WALTER H. CHAPIN, Curator.

Hampden County Horticultural Society.

MARSHALL HEADLE, Secretary.
JOSEPH AUMER, Treasurer.





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1914/15

REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASSACHUSETTS
NINETEEN HUNDRED FIFTEEN

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING APRIL
THIRTIETH, NINETEEN HUNDRED FIFTEEN

UNIVERSITY OF MICHIGAN LIBRARY

OCT 14 1964



REPORT OF THE MUSEUM
OF NATURAL HISTORY

1915

Museum of Natural History

MAY 1, 1914—APRIL 30, 1915

In the Science Building

Hours of Opening

THE MUSEUM OF NATURAL HISTORY—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21; 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

Curator of the Museum of Natural History

GRACE PETTIS JOHNSON

Museum of Natural History

Report of the Curator

To the Members of the City Library Association the Curator respectfully presents the twenty-first annual report of the Museum of Natural History:—

Lectures

Lecture courses which have been the conspicuous feature of the year's work were first arranged for in response to requests for them. Development of this phase of museum work is a result of increasing demands for more and extended courses. In quality nothing could be offered superior to the lectures given during the year, but in number the courses which it is possible for the museum to provide under the present conditions are far too limited.

The subjects discussed in these courses,—astronomy, archæology and psychology, and in the single lectures on botany and zoölogy, are listed in the appendix of this report. The attendance at these lectures, already referred to in the president's report, was greater than that of any previous year.

For interest and service far in excess of the slight compensation given, the museum is indebted to the lecturers, Prof. Jacob T. Bowne, Mr. Clarence M. Hall, Dr. George E. Dawson, Mr. John A. Viele and Mr. James H. Emerton. It is only by such disinterested service from many sources and in all departments that the museum is able to report its exceptional opportunities and results.

For these general lectures material from the museum collections including specimens, lantern slides and reference books, have been an indispensable part of the equipment, and for illustrating natural history subjects taught in the public schools this equipment is increasingly sought.

Classes

Practically every specimen in the botanical department relating to industries has been used once or many times to illustrate

talks to classes. The high school of commerce particularly finds this department useful, and as in past years has conducted a considerable part of regular class work at the museum. During the year, 1,243 pupils from various schools have come with teachers to the museum for assigned exercises, and after school sessions the permanent and temporary exhibits rarely lack the attention of many small voluntary investigators.

The increasing demand for specimens illustrating various industries points to the need of a greater number and variety of such series. Two new cases which have just been installed will for a time at least furnish means to display exhibits of this nature, several of which can be made by a contemplated rearrangement of the whole department of woods, vegetable fibers, seeds and by-products.

School Garden Exhibits

Two school garden exhibits were held in September in the basement of the building which still serves very well for such displays, and the pride with which the boys and girls under sixteen years entered their fine vegetables and flowers, and the yield per acre, testified that much well-directed hard work had been done by the young people in the school garden contest.

The evident bent or fitness for a particular kind of work which was shown by these children, and their success in pursuing it when given an opportunity, would seem to be one more indication of the importance of systematic vocational guidance.

The Psychological Laboratory

For three years Dr. George E. Dawson has been engaged in the scientific study of school children for the Springfield school department. His work while primarily concerned with various causes that operate to produce failure in school work, also involves the larger problem of the natural endowments of children, the choice of suitable courses of instruction, and ultimately the kind of vocation or career for which the child is adapted. During the winter, Dr. Dawson gave, under the auspices of the museum, five lectures relating to his subject. These lectures keenly interested hundreds of people. In this work which is steadily broadening,

the museum is indeed glad to coöperate with the school department.

Field Work

Through the activity of the Allen bird club the public has been given opportunity to join in many field excursions. These have included trips to nearby towns where meetings designed to promote an interest in the study and protection of birds were held in coöperation with local granges. As the membership of the club includes botanists, geologists and zoölogists, these out-of-door sessions have served for a general study of natural history.

Gifts

Aside from large accessions from Mr. Luman Andrews for the botanical department, and Mr. Frank A. Perret for the Springfield volcanic research society, no extensive additions have this year been made. There have, however, been many gifts received which are doing the important work of completing series and so perfecting the whole. Mr. Andrews, the museum's indefatigable botanist, now has in the herbarium approximately 13,000 specimens that he has collected. Of this number 950 different species have been searched for and found within the limits of Springfield. Names of donors are listed in the appendix of this report. To these and all others who are furthering the interests of this department the museum makes most grateful acknowledgment.

Respectfully submitted,

GRACE P. JOHNSON, *Curator.*

Gifts to the Museum of Natural History

MAY, 1914—MAY, 1915

DEPARTMENT OF GEOLOGY AND MINERALOGY

- The Vilroy C. Lord estate. Petrified wood from Arizona.
Frank A. Perret for Springfield Volcanic Research Society. Volcanic material from Sakurashima, Japan.
John F. Simons. Fossils from South Hadley, Mass.
William Orr. Fossils and rocks from Ireland and North Wales.
Ashton E. Hemphill. Fossiliferous rock from Lebanon region north of Damascus, Turkey.
Miss Emma M. Holden. Rocks and minerals.

DEPARTMENT OF ZOÖLOGY

- William Shugrue. Parula warbler.
Mrs. Howard Williams. Oven-bird.
Miss A. F. Willard. Parula warbler.
Louis P. Hastings. Magnolia warbler.
Mrs. Solomon B. Griffin. Starling.
Mrs. Juvenea Williams. Shells from southern Japan.
Everett B. Allen. Army worms.
Robert O. Morris. Bonaparte's gull.
James P. Hatch. King rail.
Miss Rachel Phelps. Screech owl.
Harold Oppenheimer. Starfish.
Francis Edwards. Prairie horned lark.

DEPARTMENT OF BOTANY

- Luman Andrews. Herbarium specimens obtained by collecting and exchange.
Dr. Walter H. Chapin. Herbarium specimens.
Clifford S. Leonard. Herbarium specimen.
Charles G. Whiting. Tropical plants.
Robert O. Morris. Bur oak to plant on grounds.

DEPARTMENT OF HISTORY OF MANKIND

- Mrs. T. L. Chapman. Indian basket from Aleutian Islands.

MISCELLANEOUS

- H. G. Denver. Water-worn wood.
George Dwight Pratt. Original plaster model of bronze medal commemorative of the dedication of Municipal Group, Springfield, Mass.

Free Lectures

MAY, 1914—MAY, 1915

ASTRONOMY—Clarence M. Hall.

Dawn of Astronomy.
Constellations.
Motions of Heavenly Bodies.
Earth as a Planet.
Observation evening at Central High School.
Eclipses.
Moon.
Sun.
Planets.
Comets and Meteors.
Fixed Stars.
Nebulae. Evolution of Worlds.
Observation evening at Smith College Observatory.

ARCHÆOLOGY—Jacob T. Bowne.

Prehistoric peoples of:—

France, Great Britain and Spain, prior to, during, and subsequent to the great ice period.
Scandinavia and Switzerland, including an account of Swiss lake dwellers.
Egypt, India and Japan.
America—Pacific coast, southwestern United States and Mexico.
America—north and south Atlantic coasts, especially New England.

PSYCHOLOGY—Dr. George E. Dawson.

Neurological Basis of Temperament.
Psychological Basis of Temperament.
Temperament and Education.
Temperament and Vocation.
Hypnotic Power.

MISCELLANEOUS—

John A. Viele.
Some Unusual Trees of America and Other Lands.
Charles Crawford Gorst.
Musical Genius of the bird.
James H. Emerton.
Spiders.





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1915/16

REPORT OF THE MUSEUM
OF NATURAL HISTORY
SPRINGFIELD, MASSACHUSETTS
NINETEEN HUNDRED SIXTEEN

PART OF THE REPORT OF THE CITY LIBRARY
ASSOCIATION FOR THE YEAR ENDING APRIL
THIRTIETH, NINETEEN HUNDRED SIXTEEN

REPORT OF THE MUSEUM
OF NATURAL HISTORY

1916

Museum of Natural History

MAY 1, 1915—APRIL 30, 1916

In the Science Building

Hours of Opening

THE MUSEUM OF NATURAL HISTORY—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21; 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

THE CATHARINE L. HOWARD MEMORIAL LIBRARY OF SCIENCE—Open every day in the year (except July 4, Thanksgiving Day, and December 25), 2 to 6 from March 21 to September 21, 1 to 5 from September 22 to March 20. Saturday mornings from 9 to 12.

Curator of the Museum of Natural History

GRACE PETTIS JOHNSON

Assistant Curator

DELL G. ROGERS

Museum of Natural History

To the members of the City Library Association the Curator respectfully presents the twenty-second annual report of the Museum of Natural History:—

Attendance and Lectures

During the two hundred and eight hours that the museum was open to the public on Sunday afternoons the past year, six thousand and thirty nine persons inspected its collections. The smallest number of visitors came during the summer months and the greatest number in the winter. On four successive Sundays of February and March there was a total of twelve hundred and forty-four people in sixteen hours, or approximately eighty persons per hour. When the season offers but few attractions out of doors, the museum is especially appreciated, its regular exhibits are enjoyed, and there results an unusually studious inspection of special exhibits. To take advantage of this attitude, informal Sunday afternoon talks were given during the first three months of 1916 on practical subjects such as wheat, corn, cotton, flax, jute, and hemp. Tables of attractive specimens were placed in the main exhibition room and the speaker for the afternoon took advantage of the opportunity to interest all who stopped to look. The bread maker who had, perhaps, only known wheat as flour in a bag, saw the plant, and pictures of fields of growing wheat, and was told of graham, entire wheat, and white flours, and of their relative nutritive values. Principles of bread making were also explained. Men who handle ropes in their daily work saw hemp, jute, and cotton plants, and their fibers in different stages of preparation. Processes of manufacturing ropes and other commonly used articles of fiber were demonstrated, and pictures were shown of crude and perfected machinery for simplifying such processes. The story of the source of our fuel coal from plants was new to many. There were boys and girls as well as men and women who listened and learned, and with few exceptions these visitors were people who do not usually attend lectures. For this reason the development of such lecture courses, tried the past season as an experiment, will be carefully planned for the future.

Week day series and single lectures have been given as heretofore. In astronomy, work conducted out of doors so far as the weather would permit, was amplified by use of the telescope at the Central High School, which revealed to many the surface of the moon, the planet Saturn and its rings, nebulae, and other wonders of the universe.

An exceptionally good geology lecture, followed by field exercises, under the direction of Professor George H. Barton, was the treat of the year for local geologists, and an equally good lecture for the students of birds was given by the late Wells W. Cooke of the United States Biological survey.

The children were not forgotten in the years' program, and by invitation of the museum, on March 28th, thirty-five hundred pupils from the fifth, sixth, seventh, and eighth grades of the public schools, assembled at the Municipal Auditorium to see Mr. William L. Finley's wonderful moving pictures of wild birds and other animals. It was indeed a valuable lecture that accompanied the pictures, and many enthusiastic letters received from children left no doubt of their appreciation. The perfect conduct of this great gathering of young people was a credit to them and to their teachers, who in this and other activities have shown a fine spirit of coöperation.

School Work at the Museum

Classes

Classes have been conducted at the museum the past year with increased success. One thousand three hundred and thirty six pupils in classes have come for assigned work, and eight hundred and eighty in thirty-five classes have come during recitation hours for class room instruction by their teachers, and to study material from the exhibits illustrating the subjects taught. The collections especially used for such exercises are local rocks, maps, the Perret collection of volcanic specimens, and photographs, fibers, grains, and woods. The practical value of such talks is illustrated by the use of a relief map of New England by the High School of Commerce in a lesson on the physical features of Hampden county which serve as a background for the development of the commercial cities of southern New England. For more general work pupils are directed to inspect the museum and write essays on such subjects as "What the museum teaches the people," "The advantages of a museum to a city or community," etc.

Exhibits

For two weeks in March, public school work in civic hygiene was illustrated by extensive displays of notebooks, pictures, food package labels, and city, state, and national health department literature, all collected by school children of the ninth grade.

Teachers' Meetings

The Supervisor of nature study holds meetings at the museum and indicates to teachers what collections can be used to supplement nature study courses. Much material is assembled for such meetings and some progress has been made in supplying loan collections for schools, branch libraries, grange meetings, and for talks on natural history by societies affiliated with the museum.

Meetings of Societies

In addition to these classes, there have been in Blake hall and at the museum sixty-two meetings of other organizations. The local bird club which has been particularly active, has furnished a series of lectures and field excursions and informal weekly bird study conferences, all free to the public.

On February 5th, there was a most enjoyable meeting of the Hartford and Springfield bird clubs at the museum. The visiting society evinced a lively interest in Springfield's notable collections of birds and the museum in which they are displayed. There was opportunity for helpful comparison of work done by the two organizations. Through the hospitality of Mr. Robert O. Morris refreshments were provided for those in attendance.

Gifts

Forty-eight donors have contributed many valuable additions to the collections since May 1st 1915. Every department has received one or several accessions. Mr. Clarence B. Moore of Philadelphia, who has recently given unique Indian relics from the south, is making frequent donations that are building up an archæological collection of unusual rarity and value. Springfield is indeed fortunate to have enlisted Mr. Moore's interest.

Mr. Luman Andrews is still collecting and giving to the botanical department. Last year's report listed 950 different species of plants from within the Springfield city limits. Since then Mr. Andrews has added to the collection until the number is well above the thousand mark he wished to record. In the general botanical

collection there are now more than 13,000 specimens. Some of the rarer plants in these collections have been contributed by Dr. Walter H. Chapin.

To the collection of birds, one of the now famous passenger pigeons has been added. This specimen, which with many other species was given by Mr. Ralph Norman Fowler of this city, was taken in Iowa by Mr. Fowler's father in 1870 when flocks of hundreds of these now extinct birds were everywhere seen.

This steady flow of additions to the collections means for classes, their teachers, members of societies, and the public in general, increased advantages that the museum can supply, providing such material is made systematically available. It becomes increasingly difficult, however, for the present limited staff to meet the daily demands, arrange for courses of instruction, and still give attention to departmental readjustment. Nevertheless some satisfying progress along this line has been made. The department of fibers, woods, and seeds has been completely rearranged and partly re-labelled. The same has been accomplished with the collection of mollusks, and instructive industrial exhibits now form part of the regular collection.

The museum has lost a valued friend in the death of Gurdon Bill. He was a generous subscriber to the building fund and gave the many groups showing birds in their natural habitats, which form one of the chief attractions of the collection and are a constant stimulus to nature study. He also gave the large groups showing the habitat of the muskrat and fox, and his frequent gifts of flowering plants did much to brighten the museum building. It is not strange that the museum appealed to one for whom all nature was ever a miracle.

The Staff

Since its beginning the museum has had faithful workers contributing unselfishly to its development. None of these has given more devoted and loyal service than that rendered by Frank Day Bishop whose death October 16th, 1915, took from the museum an assistant of unusual ability and education, and a young man to whom those associated with him were deeply attached. His presence and help in the institution will long be missed.

Miss Dell G. Rogers, who has recently become assistant curator, is a graduate of Vassar college. Her college training, supplemented by a special course at the Marine Biological laboratory, and ex-

perience in teaching, qualifies her to do valuable work in an institution which affords opportunity for helpful service in the community.

Respectfully submitted,
GRACE P. JOHNSON, *Curator.*

Free Lectures

Astronomy

CLARENCE M. HALL

Nine lectures on descriptive astronomy with observations.

Industrial Studies

JOHN A. VIELE

Two lectures on *Corn*
Hemp
Cotton
Flax
Jute
Wheat

Miscellaneous

WILLIAM L. FINLEY

Wild life of birds and other animals.

GEORGE H. BARTON

Origin of the scenery of New England, supplemented by geological excursion.

WELLES W. COOKE

Migration of birds.

Gifts to the Museum of Natural History

MAY, 1915—MAY, 1916.

DEPARTMENT OF GEOLOGY AND MINERALOGY

- H. Soland. Copper ore from Alaska.
Miss Fannie A. Stebbins. Sandstone from Indian Orchard, Mass.
George R. Bond. Minerals.
A. F. Sievers. Collection of fossils and minerals from Texas.
Dr. F. N. Seerley. Iowa marble.
Mrs. Walter H. Wesson. Calcite from Cuba.
Hubert Little. Platinum.
Mrs. J. Searle Hurlbut. Rocks and minerals.
Charles B. Atwater. Hematite from North Carolina.
Miss Clara R. Sikes. Collection of minerals.

DEPARTMENT OF ZOÖLOGY

- Charlotte Keller. Purple grackle.
State Street Grammar School. Night hawk.
Robert W. Metcalf. Phoebe.
Robert O. Morris. Collection of birds.
Henry Foy. Bittern.
Miss Clara R. Sikes. Yellow-breasted chat. Robin.
Miss Ada Lovejoy. Silkworm cocoons.
Charles F. Warner. Nashville warbler.
John J. Boyle. Black-poll warbler.
Harry L. Piper. Nests of chipping sparrow.
Miss Frances E. Cheney. Golden-crowned kinglet.
Miss Effie M. Wilcox. Saw-whet owl.
Jason Steel. Screech owl.
Ralph N. Fowler. Collection of birds.
Frank C. Rice. Loon.
Miss W. May Crook. Case of mounted birds.

DEPARTMENT OF BOTANY

- Clifford S. Leonard. Herbarium specimen.
Dr. Edward Booth for Mrs. E. B. Derby. Collection of African flowers.
Miss Lura Hall. High-bush cranberry.
Dr. Walter H. Chapin. Herbarium specimens.
Edward A. Chapin. Herbarium specimens.
H. G. Denver. Tropical plant product.
Frank D. Bishop. Herbarium specimens.
Luman Andrews. Herbarium specimens.
Robert A. Clark. "Some winter notes on Dwarf Mistletoe."

DEPARTMENT OF HISTORY OF MANKIND

- Mrs. Edwin B. Woodin. Collection of shoes from different countries.
Miss Julia T. Brown. Colonial ovens.
Frank C. Rice. Philippine mat, canes, and book.
Clarence B. Moore. Collection of Indian relics from southern states.
Dr. L. J. Gibbs. Pestle, grooved axe, gouge.

MISCELLANEOUS

- Fred Farland. Hand carved wood.
H. G. Denver. Wood and hand wrought nails.
Washburn-Crosby Company. Specimens illustrating production of wheat flour.
Robert W. Day. Photographs of pine trees.
Charles G. Whiting. Photograph of Solomon Stebbins.
Dr. L. J. Gibbs. Tree felled by beavers in Maine.
Mrs. J. Searle Hurlbut. Curios and relics.





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1916/17

ANNUAL REPORT
OF
THE CITY LIBRARY ASSOCIATION
of
SPRINGFIELD, MASSACHUSETTS

For the Year Ending April Thirtieth

Museum of Natural History.

1917

PUBLISHED BY THE ASSOCIATION

Officers of the City Library Association, 1917-1918

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KIRKHAM, JAMES W.	WALLACE, A. B.
KNOWLTON, MARCUS P.	WESSON, WALTER H.

FRANK E. STACY, *Mayor*.
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Auditors

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Standing Committees

On Finance—Henry H. Skinner, Nathan D. Bill, Stanford L. Haynes, James W. Kirkham.
On Art—G. W. V. Smith, A. B. Wallace, Walter H. Wesson, Azel A. Packard.
On City Appropriations—Henry H. Skinner, Henry J. Beebe, Robert O. Morris, A. B. Wallace, George Dwight Pratt.
On Museum of Natural History—Robert O. Morris, Walter H. Wesson, Frederick H. Gillett.
On Library—Luke Corcoran, G. W. V. Smith, Marcus P. Knowlton, Henry H. Skinner, George Dwight Pratt.
On Insurance—Nathan D. Bill.

Librarian—Hiller C. Wellman.

Director of the Art Museum—George Walter Vincent Smith.

Curator of the Museum of Natural History—Grace Pettis Johnson.

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Report of the President

The activities of this institution have been very fully chronicled in the newspapers and the library bulletin; in view of this fact and the scarcity of paper and cost of printing, the directors deem it wise this year to make the annual reports brief. This does not indicate, however, any diminution in the work of the library and museums. On the contrary, the past year has been altogether the busiest in the history of the Association, with the attendance at the museums and the use of the library larger than ever before.

In the new galleries at the Art Museum, Mr. George Walter Vincent Smith has installed additional cases, and new material of great rarity and value. These rooms now contain an admirable display of exquisite examples of the art of the Far East—chiefly cloisonné enamel, metal work, embroideries, rugs, and other textiles—assembled with the same skill in arrangement that is in evidence throughout the entire collection. Classes in history, civics, and art from the schools, as well as an appreciative public, are using the museum in increasing degree. The decision of the American Association of Museums to hold its next annual meeting in Springfield is not only a recognition of the worth of our museums, but comes also as a deserved compliment to Mr. Smith.

In the Museum of Natural History especial emphasis of late has been placed upon class work and lectures, and the five series held the past year have been conspicuously successful. Here, too, the daily attendance has been the largest recorded.

At the Library, notwithstanding the closing of the children's departments for several weeks because of infantile paralysis, and in spite of such distractions as "movies," automobiles, industrial prosperity, and interest in the war, the circulation has been larger than in any previous year. It is gratifying at this crisis in the nation's history to have available for our citizens so important a collection of books. Volumes have been supplied to the Second Regiment men on the border, and for the soldiers at present encamped on the armory grounds. For our people, who must adjust themselves to the present unusual conditions, lists of helpful books on vegetable growing and home gardening, on thrift in diet and economical cooking, on poultry raising, military science, and similar subjects have been printed and distributed. Munition-makers, manufacturers, and business men, have been aided in every feasible way. Many books for these purposes have been added to our own shelves, and others have been borrowed from distant libraries. Articles on the library's resources that are of particular value to the business men have been published in the *Board of Trade News*. Lists of technical books, lists on scientific management, of books on factory organization, exporting and South American trade, and various other phases of business and manufacture have been distributed. Information has

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been supplied on shipping conditions and trade routes, credit and finance, munitions-making, explosives, the metallurgy of iron and steel, drafting and machine design, factory construction and shop management, coal tar products, industrial chemistry, and many similar subjects. In addition, as in previous years, ambitious young workmen in large numbers have been furnished with reading to fit them for advancement in their trades or callings. Our citizens know the work of this Association as a center of popular education; but few, perhaps, realize how large a place it is coming to fill in the business and industrial life of the community.

Report of the Librarian

The library has served more people and circulated more books than in any previous year. A decrease in circulation caused by the prevalence of infantile paralysis was more than made up during the winter and spring, when the volume of work was more than ten per cent. greater than a year ago. The home use of books for twelve months amounted to 842,154 volumes, an increase of 28,233 volumes. The statistics of the main library show that of the books borrowed, fiction constituted little more than half, or 53%; and the removal of the restriction on the number of volumes of fiction to be borrowed at one time has raised the proportion circulated only about one-half of one per cent. The classes of books for adults showing the largest increases in circulation were history, 15%; and useful arts, including books on business, trades, and manufactures, 10%. The circulation of periodicals diminished—indicating, perhaps, a keener interest in the daily papers. Most noteworthy is the increase in the number of pictures drawn from the picture collections. Two years ago 40,296 pictures were borrowed; a year later, 59,872; and last year, 90,381. These pictures are used by writers, illustrators, lecturers, designers, newspapers, schools, and study clubs; at the Forest Park Branch Library, where nearly a third of the circulation occurred, the children were encouraged to borrow good pictures with the object of improving their taste.

Books have been distributed through 355 agencies, comprising the three branch libraries, 314 schoolrooms, 10 fire-engine houses, and 28 miscellaneous deposit stations—including new deposit stations at the Armenian Club, the Hebrew Progressive Carpenter's Club, The Home Helper's League, the Knights of Columbus Society, the Western Union Telegraph Co., and the boys' and the men's departments of the Young Men's Christian Association.

There are 41,008 persons holding reader's cards, listed in the register begun three years ago; 6,685 readers who had never previously used the library have taken out cards in the past twelve months. To the main library, 12,521 volumes, 843 of which were gifts, have been added; and 7,493 volumes to the three branch libraries. The entire collection now comprises 228,990 volumes.

Lists and Publications

As usual, the library has made efforts to bring its resources to the attention of the public. Notes of its activities have been generously published by the newspapers and printed from month to month in the library bulletin. Special lists were printed entitled "Are you Interested in Automobiles?", "Some Books on Gardens", "Embroidery", "The Vegetable Garden", "For Makers of Christmas Gifts", a supplement to "Aids in Drawing and Design", "Music for Beginners", "Home Books", "How to Appreciate Music", "Pen Drawing", "Dog Stories and a circular in Yiddish; other lists distributed included "Books for

Better Business", "Books on the War", "Books for Christmas for the Children", "Books for the Business Man", "Books Boys Like Best", "The Best Books of the Year", etc. The revival of interest in poetry has been noteworthy; and an attractive catalogue, "Recent Poetry", which was enriched with numerous quotations and critical notes, was not only appreciated by readers here who obtain it free, but was bought by persons in twenty-five different states as well as in Canada, Honolulu, and Australia.

Art Department

Many of the exhibitions held each month in the art room last winter were rather unusual in character. Among them were designs by the commercial artists of the city; drawings and paintings from the school of the Art Society in Hartford; photographs by the Springfield Photographic Society; original caricatures by Mr. Gluyas Williams; treasures of olden time, such as shawls, coverlets, samplers, laces, embroideries, and chintzes, lent by various interested persons, which proved so exceptionally popular that a second exhibition was arranged containing also bead bags, silhouettes, old jewelry, snuff boxes, and other objects handed down from Colonial days. Accessions to the extensive picture collections included about 1,400 more stereographs, which have been in great demand. Arrangements have been made to post or keep on file advance notices of musical events, noteworthy lectures, etc., in Springfield, New York, and Boston.

Branch Libraries

All three of the branch libraries have been active, and report larger circulations than in any previous year. The Indian Orchard Branch has been repaired and repainted. The Forest Park Branch has required new shelving, and the librarian is looking forward to the time when an addition to the building can be made to accommodate the very large patronage. At the Memorial Square Branch, the children's quarters are already so overcrowded that it is hoped to fit up the basement, thus enlarging the space on the main floor available for adults. There is little doubt but that the removal of the swarms of children will greatly increase the adult patronage.

Children's Department

The library took part in the nation-wide celebration of "good book week" last December which was promoted by the National Association of Boy Scouts of America. Various lists of good reading for children were distributed, a model collection of juvenile books was exhibited, and an informal conference was arranged for mothers on the importance of children's reading and the selection of suitable books. Occasional story hours have been held at the main library and at the branch libraries, conducted for the most part by pupils taking the course in storytelling at the Technical High School. The so-called parents' collection has been enlarged, including stories to read and tell the children, illustrated editions of the juvenile classics, and good picture books. The

latter are especially difficult for the parent to find unaided, owing to the prevalent notion among many publishers that the grotesque makes a special appeal to young children.

Reading Circle for the Blind

The reading circle for the blind has held the meetings for its third season in the library's basement room directly accessible from the street. Busy men and women have given generously of their time on Saturday afternoons reading or discussing a wide variety of subjects, and the circle had the pleasure of hearing two speakers of note from outside the city when Dr. C. D. Ussher related his experiences during the siege of Van, and Professor E. B. Read of Yale talked on German university life. Messrs. Forbes and Wallace lent a victrola for two of the meetings, and Dr. Newton M. Hall, records; the Young Men's Christian Association provided tickets for their Sunday afternoon gatherings, and the directors of the Music Festival presented tickets for one of the concerts. For the blind people it is often difficult to find persons with spare time to conduct them to the meetings. Mr. Arthur A. Adams, Mr. A. H. Rogers, and Mrs. Stephen Kellogg have generously given the use of their automobiles for those who had no guides; and if there are other citizens who can spare their automobiles for an hour or two on Saturday afternoons next season, their service will be greatly appreciated.

The library has aided the university extension work of the state, providing all the books listed in their courses, furnishing the library hall for a meeting, and affording quarters to the agents of the Board of Education who have come to Springfield to confer with prospective students.

The Staff

Resignations from the staff include Miss Helen M. Hastings, Miss Dorothy A. Hill, Miss Mary E. Hyde, Miss Flora F. Prince, Miss S. May Robinson, Miss Mildred E. White, Miss Nellie L. Chase, and Mr. James A. Lowell. In one instance, matrimony is the cause; in most, a better library position elsewhere. All of the resignations were received with regret, and cordial recognition is due for loyal and faithful service. Two of the above persons had been members of the staff for more than a dozen years: Miss Chase as head of the children's department organized the work with marked success; and Mr. Lowell, whose special charge was the shelves and public documents, has also rendered excellent and important service in other capacities. He has been called by Amherst College as assistant librarian. All of these people take with them to their new fields the best wishes of the librarian and staff. Miss Alice Shepard, assistant librarian, has had the warm sympathy of all her associates during the prolonged illness which has incapacitated her for the past year, and they rejoice at the improvement in health which gives hope of her return in the not distant future.

Respectfully submitted,

HILLER C. WELLMAN, *Librarian.*

Statistics of Accessions for 1916-1917

	Volumes	
Added by purchase, Central Library.....	11,678	
Added by purchase, Branches.....	7,493	
Added by gift.....	843	
Total gain.....	20,014	
Withdrawn.....	5,582	
Net gain.....	14,432	
In the library May 1, 1916.....	214,558	
In the library May 1, 1917.....	228,990	

Statistics of Circulation 1916-1917

	ADULT Volumes	JUVENILE Volumes
Fiction.....	157,701	30,636
Periodicals.....	10,746	1,715
General Works.....	302	186
Philosophy.....	3,141	141
Religion.....	3,793	1,114
Sociology.....	6,580	661
Education.....	2,060	45
Philology.....	1,861	90
Natural Science.....	4,015	6,816
Medicine.....	2,296	267
Useful Arts.....	11,452	1,374
Fine Arts.....	6,393	276
Music.....	9,427	52
Literature.....	12,754	5,499
Foreign Literature.....	9,955	197
History.....	7,174	5,936
Biography.....	5,272	2,354
Geography.....	5,627	6,556
Amusements.....	2,029	1,645
Myths.....		10,220
Juvenile (jj).....		16,080
Total circulation for Central Library.....	262,578	91,860
Indian Orchard Branch.....		354,438
Forest Park Branch.....		31,739
Memorial Square Branch.....		130,865
Estimated circulation at schools and other agencies.....		163,576
Total circulation.....		1,615,536
Pictures circulated.....		842,154
		90,381

Art Museum

The George Walter Vincent Smith Collection

To the Members of the City Library Association:—

During the past year special attention has been given to the arrangement and proper labeling of the collections in the two new galleries on the first floor. Mr. Smith's habit of continually adding to the collections makes it almost superfluous to report that many beautiful specimens are shown for the first time; these include carved jades and semi-precious stones, ceramics, cinnabar lacquer, antique glass, cloisonné and other enamels, bronzes, arms, embroideries, textiles, and Oriental rugs.

The educational work with the schools has been extended and the collections are used by the teachers in connection with their classes in history and civics, as well as in design.

The children's class for Saturday forenoon has been continued, and the interest and intelligent remarks of some of these little ones demonstrates the fact that they get more out of it than many of their elders.

I would like to mention the fact that the American Association of Museums, which has just held its annual meeting in New York City, voted to hold the 1918 convention in Springfield. This is very gratifying to us, being an especial honor to Mr. Smith and the two museums as the meetings are usually held in much larger cities.

Respectfully submitted,

ELEANOR A. WADE, *Curator.*

Museum of Natural History

To the Members of the City Library Association:—

Through its lectures of the past year the museum has reached more people than ever before in its history; the total number of persons attending being approximately seven thousand one hundred and eighty-seven.

Classes from the Schools

One thousand three hundred and ten pupils in classes have come to the museum with their teachers; and of these, nine hundred and fourteen have come for assigned work and received classroom instruction. Specimens from the museum collections have been supplied for these exercises, and have illustrated the practical talks on such subjects as general and relative anatomy, physical geography, volcanoes, coal, building stones, birds, and small mammals, Indian customs and implements, and community civics. The museum has supplied for teachers an eight-page handbook summarizing the museum contents, with brief suggestions of ways to use the collections. The increased and more definite use of the museum has been a direct result of this pamphlet. For permanent use in the grades, good general collections have been supplied from duplicates. These sets may be borrowed by schools or other organizations for any reasonable length of time.

Field Excursions

Trips to nearby mines and quarries have supplemented the mineralogy class exercises, and lessons in the field have been a frequent feature of the Bird Club's work. For these various meetings and for the convenience of visiting societies or individuals the museum always gladly opens its doors morning or evening as well as during the regular hours.

The total attendance at the museum, at lectures provided by the museum, and at those of more or less affiliated societies to which hospitality is extended, makes an average of ninety-three persons served daily by the institution, or a total yearly attendance of thirty-three thousand nine hundred and forty-five.

Gifts

Another indication of public interest is expressed through gifts that have come in steadily. The number of donors is nearly double that of last year. From Mr. Luman Andrews the museum is still receiving generous contributions to an already rare herbarium. From Robert O. Morris and others many specimens have been added to one of the best collections of birds in the state. The beginning of a unique collection of photomicrographs of animal and plant forms has just been

received from Miss Mary A. Booth whose work as a microscopist has brought recognition from leading scientific societies of the world. It is most fitting that this very desirable contribution from a local scientist is to be displayed with the choice exhibits of minerals and fossils collected by her father Mr. Samuel Colton Booth.

As in past years Mr. Clarence B. Moore was a contributor to the archæological department, while Mr. T. Nelson Dale and Miss Fannie A. Stebbins have enriched the geological department. To these and other donors, and to the public in general the museum is deeply grateful for continued interest and support.

Respectfully submitted,

GRACE P. JOHNSON, *Curator.*

Treasurer's Report

FOR THE FISCAL YEAR ENDING APRIL 30, 1917

RECEIPTS

Balance brought forward from year 1915-1916.....	\$ 84.13
Appropriation from City of Springfield.....	69,000.00
Dog tax.....	5,111.79
Alice W. Adams fund.....	45.00
Aston fund.....	50.00
Fanny Hazard Bond fund.....	200.00
John Bryant fund.....	225.00
Chester W. Chapin fund.....	650.00
O. H. Greenleaf fund.....	300.00
Augustus G. Hazard fund.....	250.00
J. Searle Hurlbut fund.....	25.00
Charles S. Marsh fund.....	325.00
Charles Merriam fund.....	385.00
Sarah J. Moore fund.....	160.00
Caroline L. Rice fund.....	325.00
Grace Rumrill music fund.....	560.00
Joseph L. and Margaret H. Shipley fund.....	107.50
G. W. Tapley fund.....	45.00
James M. Thompson fund.....	325.00
Dr. William Tully fund.....	12.50
David Ames Wells fund.....	4,967.50
Net Income, Edward Street House.....	439.56
From Catharine L. Howard Library Association.....	57.82
Interest on bank balance.....	408.40
Fees for overdetection of books.....	4,316.04
Miscellaneous receipts.....	516.09
Total receipts.....	\$88,891.33

EXPENDITURES

GENERAL EXPENSES

Engineer, janitor, and watchman.....	\$ 4,188.76
Fuel.....	5,071.61
Insurance, repairs, and miscellany.....	1,829.26
	\$11,089.63

LIBRARY EXPENSES

Salaries of librarian and assistants.....	\$28,763.18
Messengers.....	1,206.51
Sunday and holiday service.....	328.42
Cleaning.....	1,676.17
Books.....	8,512.87
Photographs and plates.....	458.53
Periodicals.....	1,161.52
Binding.....	2,600.63

TREASURER'S REPORT

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Printing.....	\$ 833.68
Printing catalogue.....	375.60
Stationery and supplies.....	1,318.48
Furniture and improvements.....	571.73
Repairs.....	536.83
Light and power.....	1,823.38
Postage.....	407.31
Express and freight.....	356.40
Telephone.....	229.60
Miscellany.....	294.02
	\$51,454.86

FOREST PARK BRANCH

Salaries.....	\$ 3,231.69
Books and periodicals.....	2,170.32
Fuel, light, telephone, and miscellany.....	1,248.68
	\$6,650.69

INDIAN ORCHARD BRANCH

Salaries.....	\$1,298.92
Books and periodicals.....	454.08
Fuel, light, telephone, and miscellany.....	730.45
	\$2,483.45

MEMORIAL SQUARE BRANCH

Salaries.....	\$3,538.42
Books and periodicals.....	3,411.88
Fuel, light, telephone, and miscellany.....	1,319.82
	\$8,270.12

ART MUSEUM

Salaries of attendants, George Walter Vincent Smith collections.....	\$3,347.62
Salaries, Hall of Sculpture.....	359.41
Cleaning, repairs, light, and miscellany.....	2,046.20
	\$5,753.23

MUSEUM OF NATURAL HISTORY

Salaries.....	\$1,408.65
Books for Catherine Howard Library.....	142.80
Repairs.....	615.55
Printing and publications.....	280.00
Lectures.....	187.82
Light, telephone, cleaning, and miscellany.....	483.42

	\$3,118.24
Total expenditures.....	\$88,820.22
Balance.....	71.11
	\$88,891.33

CITY LIBRARY ASSOCIATION

G. W. V. SMITH ART CURATOR'S ACCOUNT

1916				
May 1	Balance.....	\$1,593.42	Expenditures during	
	Interest.....	26.78	fiscal year 1916-1917	\$ 500.00
			1917	
			April 30 Balance.....	1,120.20
		<u>1,620.20</u>		<u>1,620.20</u>

DAVID AMES WELLS ENDOWMENT FUND

1916	Balance.....	\$ 250.61	Transfer to balance	
May 1	Payment of \$1,000		investments.....	\$ 126.73
	American Steel		1917	
	Foundries bond.....	1,000.00	April 30 Balance.....	1,123.88
		<u>1,250.61</u>		<u>1,250.61</u>

CHARLES M. KIRKHAM FUND FOR BEAUTIFYING GROUNDS

1916				
May 1	Balance.....	\$ 61.38	Expenditures.....	\$ 196.90
	Interest on \$3,000			
	Southern Pacific			
	bonds.....	120.00		
	Interest on \$2,500			
	American Tel. & Tel.			
	Co. bonds.....	100.00		
	Interest on \$1,000			
	Baltimore & Ohio R.		1917	
	R. Co. bond.....	50.00	April 30 Balance.....	134.48
		<u>\$ 331.38</u>		<u>\$ 331.38</u>

CHARLES M. KIRKHAM FUND FOR PURCHASE OF MEDICAL BOOKS

	Interest on \$3,000		Transferred to general	
	Southern Pacific		fund.....	\$.55
	Co. bonds.....	\$ 120.00	Expended for medical	
	Interest on \$2,500		books.....	1,850.00
	American Tel. & Tel.			
	Co. bonds.....	100.00		
	Sale of \$1,000 South-			
	ern Pacific Co. 5's....	1,050.00		
	Sale of \$1,000 Adams			
	Express Co. 4's.....	800.00	1917	
	Interest.....	.55	April 30 Balance.....	220.00
		<u>\$2,070.55</u>		<u>\$2,070.55</u>

FANNY HAZARD BOND FUND

1916				
May 1	Balance.....	\$ 40.37	Transfer to balance	
			investments.....	\$ 40.37
		<u>\$ 40.37</u>		<u>\$ 40.37</u>

TREASURER'S REPORT

FUND FOR SCIENCE MUSEUM PUBLICATIONS

1916			1917		
May	1	Balance.....	\$ 210.99	April 30	Balance.....
					\$ 210.99
					\$ 210.99

SHERMAN D. PORTER FUND

1916					
May	1	Balance.....	\$ 984.13	Purchase \$1,000 Balti-	
		Refunded.....	1,850.00	more & Ohio R. R.	
		Interest.....	14.74	Co. bonds.....	\$1,036.25
		Interest on \$3,000		Purchase \$1,000	
		Baltimore & Ohio		Southern Pacific Co.	
		R. R. bonds.....	150.00	5's.....	1,050.00
		Interest on \$1,000		Purchase \$1,000	
		Adams Express Co.		Adams Express Co.	
		bond.....	40.00	4's.....	800.00
		Interest on \$1,000			
		Southern Pacific Co.		1917	
		bond.....	25.00	April 30	Balance.....
					177.62
					\$3,063.87
					\$3,063.87

DR. WILLIAM TULLY FUND FOR PURCHASE OF MEDICAL BOOKS

1916					
May	1	Balance.....	\$ 501.80	Purchase \$500 South-	
		Interest.....	6.38	ern Pacific Co. bond.	\$ 540.00
		Transfer to balance in-			
		vestments.....	31.82		
			\$ 540.00		\$ 540.00

SARAH J. MOORE FUND

1916					
May	1	Balance.....	\$1,752.95	Purchase \$8,000 St.	
		Interest.....	52.14	Louis & San Fran-	
		From estate.....	4,020.71	cisco bonds.....	\$5,956.22
		Transfer to balance in-			
		vestments.....	130.42		
			\$5,956.22		\$5,956.22

DENTAL LIBRARY FUND

1916				1917	
May	1	Balance.....	\$ 281.52	April 30	Balance.....
		Interest.....	11.36		\$ 292.88
					\$ 292.88
			\$ 292.88		\$ 292.88

The only outstanding indebtedness of the City Library Association is a note to the William Merrick Endowment Fund for the sum of \$30,000. This note was made by the order of the Board of Directors to keep the William Merrick Endowment Fund alive.

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ANNUAL REPORT

OF

THE CITY LIBRARY ASSOCIATION

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SPRINGFIELD, MASSACHUSETTS

For the Year Ending April Thirtieth

1918

PUBLISHED BY THE ASSOCIATION

Officers of the City Library Association, 1918-1919

PRESIDENT: NATHAN D. BILL
VICE-PRESIDENT: ROBERT O. MORRIS
TREASURER: HENRY H. BOWMAN
ASSISTANT TREASURER: HENRY M. MORGAN
CLERK: HILLER C. WELLMAN

Directors

BEEBE, HENRY J.	PACKARD, AZEL A.
CARROLL, JAMES B.	PRATT, GEORGE DWIGHT
CORCORAN, LUKE	SKINNER, HENRY H.
GILLETT, FREDERICK, H.	SMITH, G. W. V.
HAYNES, STANFORD L.	WALLACE, A. B.
KIRKHAM, JAMES W.	WESSON, WALTER H.

FRANK E. STACY, *Mayor*.

CHRISTOPHER G. SIMPSON, *President of the Common Council*.

JAMES H. VAN SICKLE, *Superintendent of Schools*.

Auditors

W. C. SIMONS A. W. DAMON

Standing Committees

On Finance—Henry H. Skinner, Nathan D. Bill, Stanford L. Haynes, James W. Kirkham.

On Art—G. W. V. Smith, A. B. Wallace, Walter H. Wesson, Azel A. Packard.

On City Appropriations—Henry H. Skinner, Henry J. Beebe, Robert O. Morris, A. B. Wallace, George Dwight Pratt.

On Museum of Natural History—Robert O. Morris, Walter H. Wesson, Frederick H. Gillett.

On Library—Luke Corcoran, G. W. V. Smith, James B. Carroll, Henry H. Skinner, George Dwight Pratt.

On Insurance—Nathan D. Bill.

Librarian—Hiller C. Wellman.

Director of the Art Museum—George Walter Vincent Smith.

Curator of the Museum of Natural History—Grace Pettis Johnson.

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In Memoriam

MARCUS PERRIN KNOWLTON

In the death of their honored associate, Marcus P. Knowlton, the Directors of the City Library Association share with the community and with the entire Commonwealth a sense of enduring loss.

For the past sixteen years Judge Knowlton has been a member of this Board. He was always a firm believer in the importance and wide usefulness of the City Library Association, and declared that no other institution in the city touched the lives of so many of its people. He was of unfailing help in the counsels of the directorate, faithful in attendance, strong yet ever considerate, clear-seeing and just.

In recording the loss sustained by this institution, the Directors feel also deep personal sorrow and sincere sympathy with the members of his family.

Adopted by the Board of Directors, May 29, 1918.

17 Apr 29 1918 dir. g. conf. Mo

Report of the President

Within the period covered by this report, the new galleries on the first floor of the Art Museum have been opened by Mr. George Walter Vincent Smith, containing rich treasures displayed with all his unique skill in arrangement. In the entrance hall Mr. Smith has also installed two large cases containing trays, paper weights, and pedestals made of marbles, such as are no longer procurable, from the ruins of ancient Rome; and in the Hall of Sculpture, he has placed two large cases of Greek pottery. The reputation of our museums is shown by the choice of a city of this size for the annual convention of the American Association of Museums, at which gathering much admiration was expressed for the beautiful objects and the excellent arrangement of the George Walter Vincent Smith collections. Indeed, the coming of the convention was a personal compliment to Mr. Smith.

The Museum of Natural History has continued its useful work, and feels that more definiteness of result has been obtained than ever before. Among many generous gifts is the notable anthropological collection presented by Mr. Jacob T. Bowne, which relates especially to the North American Indian type, and more particularly to the Indian of the Connecticut Valley within twenty miles of Springfield. Containing the remains of aboriginal handiwork in stone, bone, shell, and pottery, gathered from ancient camp sites and burial places in this vicinity, it forms an extensive and admirably organized collection of great historic and scientific interest.

The year has been an exceptionally busy one for the library and branches, with an increased patronage of almost 10%; and it is gratifying to note what important service they are rendering in these critical times. Not only has the work of the main library on State Street increased, but the branch libraries have grown phenomenally. To relieve crowded conditions at Memorial Square, the large basement has been finished and made a very attractive room for children, thus releasing the whole of the main floor for the use of older people. The war activities of the library are described in the reports which follow, but decidedly worthy of note is the splendid work which the libraries of the country have done, through the American Library Association, in supplying a library system for all the great camps and in sending books broadcast to the smaller posts, to the transports, and to the men overseas. Towards this work, Springfield contributed more than its quota in money; and the spring campaign for books yielded the astonishing number of 34,000 volumes, placing Springfield, considering its size, well towards the head of the list of contributing cities.

This association suffered a sad loss in the death of Judge Marcus P. Knowlton, who served for sixteen years as a member of the Board of Directors. His keen and intelligent interest, and his wise aid will be greatly missed. On a noteworthy occasion, he pointed out that no other institution in Springfield reaches and benefits so many of our people. Appreciation of Judge Knowlton's service has been recorded by the Directors, and will be printed with this report. The vacancy in the Board was filled by the unanimous election of Hon. James B. Carroll.

NATHAN D. BILL, *President.*

Report of the Librarian

The Great War has naturally been the overshadowing influence in the activities of the library, as may be seen from the following résumé; and the khaki uniform is a common sight in the reading rooms, for one part of the library's work is directly with officers and men. Drill manuals, guides for soldiers, French textbooks, books on aéroplanes, machine guns, and many other branches of military science have been liberally supplied. Personal letters have been sent officers stationed at the Armory, inviting them to use the library's resources; and many important technical works have been furnished, some of which were not otherwise obtainable. Men of draft age have been given publications describing the conditions of military life; and men who had taken the training at Plattsburg have been provided with officer's manuals, works on military map-making, and the like. The library early printed a list of its books on military subjects which has been widely used.

Civilians engaged in the manufacture of munitions resort to the library for all sorts of information, often involving considerable research. A manufacturer of aéroplanes, for example, asks for tests showing the qualities of hickory; a maker of saddlery looks up publications on leather; a Government silk inspector refers to books on silk culture and spinning; a teacher in a school of aëronautics asks for the latest information in print; an army officer uses special dictionaries in translating an important military work; men from the factories consult all sorts of books on machinery, fuel oils, aéroplane motors, and a host of similar topics. In fact, no day passes without many calls for technical books directly or indirectly bearing on the war.

Last fall the library conducted a campaign to raise money for the national fund to provide libraries for our soldiers and sailors. The work was carried on by a committee of seventy patriotic women under the chairmanship of Mrs. Henry M. Phillips. Springfield quickly over-subscribed its quota, contributing \$8,107.76. For the same purpose, our citizens gave this spring more than 34,000 books—an extraordinary number in proportion to the size of the city—which were energetically solicited and gathered by the high school pupils. Members of the Woman's Club lent their automobiles; the F. M. West Company gave ninety-five packing cases; various expresses furnished transportation; and the Women's Committee of the Council of National Defense helped in sorting and preparing for circulation this huge accumulation. The library has supplied the soldiers at the Armory, the Watershops, and other nearby places, while the American Library Association is distributing the majority of the books to our soldiers and sailors at home and overseas.

The library has been active in the movement for food conservation. It promptly printed lists of books to help the housekeeper make the best use of food supplies, and has displayed charts and posters showing the nutritive value of different foods. It affords an admirable channel

for reaching the homes of the people; and besides printing lists on gardening, bee-keeping, and similar subjects, it has obtained and distributed thousands of pamphlets on diet, canning, vegetable-raising, thrift, etc. It enlisted the aid of the high schools and the Hampden County Improvement League in preparing and exhibiting model meals for meatless, wheatless, and other days, all showing a correctly balanced diet. It arranged with the Committee of Public Safety for a continuous series of exhibits and demonstrations at the main library and also in the branches. It has slipped in library books when borrowed, thousands of excellent recipes to encourage the use of substitutes for meat, wheat, fats and oils. In the same way, at appropriate branches, recipes have been distributed in six different languages, and in one instance a gathering was held of foreign housewives. Pictures, notices, posters, and lists have been constantly displayed in aid of patriotic movements; in the reference department is gathered material on women's war work, and there is maintained also a directory and register of local organizations engaged in war work. The hall and rooms of the library and museums have been at the service of patriotic organizations, and have been used for gatherings of the soldiers. Campaigns for the Red Cross, Red Triangle, the War Chest, Liberty Loans, and allied projects have been assisted, the librarian and members of the staff have participated, and they also have represented the library on committees for food conservation, Americanization, and the like. Meetings of the librarians from towns and villages in this part of the state have been called to further war-gardening, conservation, and thrift. In short, the library has tried to cooperate in every possible way with food and fuel conservation commissions, with the Council for National Defense, the Committee of Public Safety, and all similar organizations.

Not least important in these trying times is the opportunity the library affords for relaxation from nervous strain. The war is continually present, consciously or subconsciously, and the resulting tension is depressing. Many a man or woman finds in books which lead the thoughts into other fields, the relief and refreshment that make for sanity and emotional poise. With this in mind, a little booklist was printed entitled "Nonsense and Humor."

Perhaps the most fundamental service is rendered by the library through its large collection of books on the war. A catalogue with descriptive notes was printed and distributed widely, listing a hundred of the best and most popular. Such books exert a powerful influence in educating public opinion. Circulated by the thousands throughout the whole community, they give an intelligent comprehension of the issues at stake, further unity of thought and action, stiffen the determination to win, and promote in no small measure increased willingness to bear the deprivations, hardships, and losses necessary for success.

Statistics

With a view to strict economy, little effort has been made to expand the library's work. It is the more surprising, therefore, that in spite of this policy, and notwithstanding the distractions of war activities,

readers have borrowed far more books than ever before. The total circulation amounted to 924,122 volumes, an increase of 81,968 volumes or 9 $\frac{1}{10}$ %. In addition, 92,566 pictures were lent. As would be expected, the reading of history, including the books on the war, gained very largely—more than 50%—and at the expense of some other classes of literature; 6,329 persons who had never before used the library registered for cards, and 172 re-registered, making a total registration since 1914 of 47,509; 399 distributing agencies have been used, including 366 class rooms, 10 fire engine houses, and 23 deposit stations in factories, offices, Sunday schools, clubs, and other institutions; 8,863 volumes have been bought for the central library and 3,067 volumes received by gift. In addition, 8,411 volumes have been bought for the three branch libraries, making total accessions of 20,341 volumes; 4,686 volumes have been worn out or withdrawn, and the entire collection now comprises 244,645 volumes.

Branch Libraries

All of the branch libraries have been exceptionally busy. At Memorial Square a large and attractive basement has been finished and fitted up for children, thus relieving the crowded condition of the main floor, and affording quieter and more convenient quarters for adult readers. The circulation amounted to 183,748 volumes, an increase of 20,172. More than 20% of the adult books lent were in foreign languages, and of these, nearly half were in Yiddish; the branch is very active in the work of Americanization. The Forest Park Branch circulated 152,170 volumes, a gain of 21,305 volumes. This is a remarkably large circulation in proportion to the population served, and it seems doubtful whether the use of this branch can greatly increase until here, too, some addition to the accommodations is provided. Besides the books, 45,906 pictures were borrowed, the great majority by teachers and school children. The Indian Orchard Branch circulated 39,144 volumes which is 26% more than in any previous year.

The Poetry Society

A novel feature, and one of the pleasantest developments of the year, was the organization of the Poetry Society of Springfield, which is affiliated with the library, holding most of its meetings in the library hall, in which case they are always open to the public. Large audiences have thus had the pleasure of listening to Miss Amy Lowell, imagist; Louis V. Ledoux, classicist; and Padraic Colum, Irish lyricist—a selection which testifies to the catholicity of the society. At informal meetings, the poets treated in Miss Lowell's "Modern American Poetry" have been taken up, and the discussion has been delightfully spontaneous and invariably spirited. On other occasions, original verse by members of the society was read, and a lecture given by Miss Mary A. Jordan of the Smith College faculty on "The Old and the New in Modern Verse," while Emil K. Janser gave a talk on "Poetry and Music," illustrated with songs by Mrs. F. L. Sample. A contest was held at which the

best poems submitted by members were presented, and the concluding meeting was given up to a poetic play by Anna Hempstead Branch.

Reading Circle for the Blind

The reading circle for the blind has held twenty meetings, which have been addressed on subjects ranging from travel experiences in Hungary and Greece, to national prohibition, early kindergarten leaders, and the making of a book described by its author. At a midwinter meeting, Adjutant Edwin C. Parsons of the Lafayette Escadrille and Mr. Russell Tapley described their experiences in the air and ambulance service in France, and outside friends were invited, who filled the hall. The members of the circle were also entertained with music at the South Church parlors, and at the home of Mrs. L. L. Doggett. Thirty-six persons have lent their automobiles to transport the members to and from the meetings; and tickets have been furnished by the Orpheus Club for its concert, and by the Young Men's Christian Association for the Sunday afternoon gatherings in the auditorium.

Miscellaneous Matters

There are many other matters deserving of report, and many acknowledgments of gifts and service which should be made, but owing to limitations of space only a few can be noted.

The library hall has been fitted with wall screens for exhibition purposes, and has been used far more than ever before. An extensive exhibit of the library's work was installed at the Child Welfare Exposition held on the "Eastern States" grounds.

A printed folder has been issued describing the department of music, and it is gratifying to observe the increasing place which it fills in the community. For example, at the Philharmonic concert under the leadership of the Swedish musical director, of the twelve numbers, all but one were performed with music borrowed from the library.

Appropriate story hours have been conducted for the children from time to time at the main library and the branches; and a "Happy Jack" thrift club has been formed to encourage the purchase of thrift stamps. Original designs for each number of the library Bulletin were made by the pupils of the junior high schools, through the kind cooperation of Mr. C. Edward Newell, Supervisor of Art.

The library and branches have continued their interest in Americanization, Miss Ida F. Farrar of the staff serving with the Americanization Committee of the Committee of Public Safety. Books to forward this work have been circulated, thirty-five members of a class in naturalization were given a talk at the library, and printed information about the library has been furnished to be distributed to everyone making application for naturalization.

The members of the library training class have enjoyed a valuable college course in European history at the Central High School, and nearly half of the library staff have attended a course in English literature conducted by the Extension Department of the State Board of Education.

Owing to war weddings, openings in other libraries, in business, and in the Government service at Washington, the library has lost seventeen assistants. The depletion of the staff and numerous changes, the largely increased patronage, the fuel shortage, the closing of schools, the war work, and various other matters, have combined to make the past year peculiarly arduous. I want to commend highly the spirit which has animated the staff, the enthusiasm with which they have attacked every problem, and above all their eagerness to do anything and everything which would increase the library's helpfulness in the great task of winning the war.

Respectfully submitted,

HILLER C. WELLMAN, *Librarian.*

Statistics of Accessions for 1917-1918

	Volumes	
Added by purchase, Central Library.....	8,863	
Added by purchase, Branches.....	8,411	
Added by gift.....	3,067	
Total gain.....		20,341
Withdrawn.....		4,686
Net gain.....		15,655
In the library May 1, 1917.....		228,990
In the library May 1, 1918.....		244,645

Statistics of Circulation 1917-1918

	ADULT Volumes	JUVENILE Volumes
Fiction.....	174,879	34,468
Periodicals.....	9,562	1,946
General Works.....	295	490
Philosophy.....	3,381	139
Religion.....	3,692	1,108
Sociology.....	6,665	618
Education.....	1,696	46
Philology.....	1,757	80
Natural Science.....	3,802	7,469
Medicine.....	2,763	318
Useful Arts.....	11,868	1,895
Fine Arts.....	5,777	389
Music.....	8,257	52
Literature.....	12,252	6,122
Foreign Literature.....	9,671	167
History.....	11,025	5,494
Biography.....	5,130	2,556
Geography.....	5,010	7,186
Amusements.....	1,823	1,514
Myths.....		11,705
Juvenile (jj).....		17,508
Total circulation Central Library.....	279,305	101,270
Indian Orchard Branch.....		380,575
Forest Park Branch.....		39,144
Memorial Square Branch.....		152,170
Soldiers' Libraries at Armory.....		183,748
Estimated circulation at schools and other agencies.....		3,915
Total circulation for home use.....		164,570
Pictures Circulated.....		924,122
Deposited in 366 school class rooms:		
Supplied for one half school year.....		23,245
Renewed for second half of school year.....		8,321
Total school deposits.....		31,566

Art Museum

The past year has been a busy one at the Art Museum, the work in connection with the children and the schools has been continued, an especial effort being made to have those interested in design in any way realize the wealth the Museum has to offer in that direction.

The fact that Mr. Smith insists upon bringing in new material notwithstanding the already over-crowded condition of the galleries has necessitated the placing of two large cases in the Hall of Sculpture, in which is exhibited the fine collection of Greek pottery. Two cases have also been placed in the lower hall for want of a better location. In one of these have been installed trays, paper weights, etc., carved from pieces of marbles from the ruins of ancient Rome, which were collected by Mr. Smith during his residence there in 1867 and 1868. Three large cases have been added to the gallery formerly used as the Directors' room. In these are shown Oriental embroideries not previously exhibited. Two cases filled with antique glass from the Mediterranean coast have been added to the long gallery on the second floor.

Perhaps it is not out of place to mention the recent convention of the American Association of Museums which was held here the 20th, 21st, and 22d of May. This was the first time the association has ever held their convention in so small a city as Springfield, and only three times before—last year in New York City, the year before at Washington, and in 1912 at New York City—has there been so large an attendance, which was very gratifying to us. Special reference was made to the use of museums in time of war, and an urgent appeal to thoughtful men that all the power and wealth of the nation shall not be used for instruments of destruction, but a certain proportion given to the civilizing influence which is so much needed in this season of war. The stimulus afforded by association with the foremost minds in museum work will be a lasting benefit to us all.

Respectfully submitted,

ELEANOR A. WADE, *Curator*

Museum of Natural History

1918

Conspicuous features for the past year are the results of systematically developed methods of coöperation with the schools.

School courses in nature study have been supplemented at the Museum by illustrative specimens, and thirty-seven additional loan collections have been in active use. Three-fourths of the school children visiting the Museum have a definite question to ask; and this estimate applies to the general public as well, there being a notable decrease in the number of persons who come aimlessly.

The total attendance, including attendance at lectures and other meetings relating to the work of the Museum, was 31,053.

Activity During the Fuel Crisis

To the Museum, as to other institutions, the enforced closing of schools during the fuel crisis meant increased activity. Children flocked to the building and showed eagerness to be doing something. This desire was met by improvised games that would lead to study of exhibits, by encouragement of drawing and modeling, and the assigning of small tasks that the children delighted to perform. Ingenuity of the staff was taxed to the utmost to make the Museum supply its best for the hundreds of eager boys and girls. For the high schools, class rooms were provided. Apparatus was brought to the Museum where school work was continued. From the head of the science department of the Central High School came the following statement;—"The Junior College work in physics was thereby continued without a break, which meant a great deal to us."

Evening Openings for the Soldiers

Twice during the winter the Museum has been opened for soldiers. There was a prompt response to invitations to spend an evening looking at the collections, and to enjoy the social features and refreshments provided. Cases of the apple tree's finest product supplied by our president, Mr. Nathan D. Bill, found favor with the guests, of whom there were fifty or sixty at each gathering.

Work With Boy Scouts

Boy Scouts are finding the Museum helpful in the nature work required by their organization. Assistance in the study of birds has been sought, and applicants have been examined for merit badges.

Lectures

Illustrated lectures and scientific motion pictures were given jointly with the High School of Commerce, while lectures and talks that attract

smaller audiences are still given at the Museum and at the City Library hall. Altogether, seventy-seven meetings relating to Museum work have been held, with an attendance of 3,568 persons.

Department of Psychology

The work in the Department of Psychology has continued to expand during the past year, affecting an increasingly wide circle of community interests. Aside from the regular examination of school children, which has included some 400 cases, the following institutions and organizations have availed themselves of the facilities of the Laboratory:—The Cathedral School, the House of the Good Shepherd, the Union Relief Association, The Good Will Home, the Hampden County Training School, the Police courts of Springfield and Holyoke, the State Board of Charities and Correction, and the social service departments of several churches. In addition to such work of a more or less clinical nature, the parents of Springfield and vicinity in steadily increasing numbers are referring their children for examination regarding their further education or their occupational careers.

Plans are also under way for the collection and exhibition in the Museum of material illustrating the ethnological and social background of the psychological problems dealt with—such as the evolution of children's play-life and education; the evolution of home-life, religion, dress, ceremonies, etc.; and the more distinctive types physical and psychological, of racial development.

Gifts

A collection of wall maps much needed for class work and for general reference has been given by Mr. Robert O. Morris. The set of eight are neatly encased in metal containers from which they may be withdrawn for display, and the whole outfit or any part of it can easily be moved for use in different departments. The set consists of a large geologic map of North America; a political map of the United States; a set of fifteen topographic sheets with Springfield for a center. In another container are two maps showing the principal drainage basin and gaging stations of Massachusetts and Rhode Island, and a preliminary geologic map of the same states. Then there are the frequently referred to maps of the Holyoke Folio and of Emerson's Geology of Old Hampshire County, Mass., and a soil survey map which completes the set.

Mr. Jacob T. Bowne's archæological collection, that is recognized as a choice one by museums and students of Indian life, has been given to the Museum by Mr. Bowne and will become a part of its exhibits. The gift is an important one containing rare pieces from many localities. Data have been carefully kept and specimens selected with discrimination by a master of the subject. Mr. Bowne's gift is an event in the history of the Museum, making its archæological department one of the finest of the state.

To this same department the Fred T. Ley Company has given an Indian skeleton which was found at the junction of the Connecticut

and Chicopee rivers. This specimen is now displayed in the exact position of interment, and for excellent work in its removal and preparation the Museum is indebted to Mr. Donald B. Young of the Y.M.C.A. College.

These are but a part of many valued donations for which the Museum makes grateful acknowledgment.

The Catherine L. Howard Library has been considerably expanded during the past year, and to its collection of reference books many volumes have been added. More and more this memorial becomes an indispensable adjunct of the Museum.

Respectfully submitted,

GRACE P. JOHNSON, *Curator.*

Treasurer's Report

FOR THE FISCAL YEAR ENDING APRIL 30, 1918

RECEIPTS

Balance brought forward from year 1916-1917.....	\$ 71.11
Appropriation from City of Springfield.....	74,000.00
Dog tax from City of Springfield.....	4,934.58
Alice W. Adams fund.....	45.00
Aston fund.....	50.00
Fanny Hazard Bond fund.....	200.00
John Bryant fund.....	225.00
Chester W. Chapin fund.....	500.00
O. H. Greenleaf fund.....	300.00
Augustus G. Hazard fund.....	250.00
J. Searle Hurlbut fund.....	25.00
Charles S. Marsh fund.....	250.00
Charles Merriam fund.....	385.00
Sarah J. Moore fund.....	320.00
Caroline L. Rice fund.....	250.00
Grace Rumrill music fund.....	560.00
Joseph L. and Margaret H. Shipley fund.....	107.50
G. W. Tapley fund.....	45.00
James M. Thompson fund.....	250.00
Dr. William Tulley fund.....	25.00
David Ames Wells fund.....	4,990.00
Charles M. Kirkham fund for medical books.....	440.00
Net income, Edwards Street House.....	351.89
From Catherine L. Howard Library Association.....	142.80
Interest on bank balance.....	438.33
Fees for overdetection of books.....	4,827.88
Receipts from duplicate pay collection in excess of cost of books.....	293.60
Miscellaneous receipts.....	432.20
Total receipts.....	<u>\$94,709.89</u>

EXPENDITURES

GENERAL EXPENSES

Engineers, janitors and watchmen.....	\$ 4,588.47
Fuel.....	6,951.64
Insurance, repairs, and miscellany.....	1,564.27
	<u>\$13,104.38</u>

LIBRARY EXPENSES

Salaries of librarian and assistants.....	\$29,573.76
Messengers.....	1,081.85
Sunday and holiday service.....	306.83
Cleaning.....	1,584.71
Books.....	6,534.64

TREASURER'S REPORT

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Periodicals.....	\$ 1,175.04
Binding.....	2,249.26
Printing.....	780.76
Stationery and supplies.....	1,173.50
Furniture and improvements.....	347.22
Repairs.....	418.62
Light and power.....	1,811.21
Postage.....	725.66
Express and freight.....	352.43
Telephone.....	240.22
Miscellany.....	431.88
	<hr/>
	\$48,787.59

FOREST PARK BRANCH

Salaries.....	\$3,856.69
Books and periodicals.....	3,203.06
Fuel, light, telephone, and miscellany.....	1,256.52
	<hr/>
	\$8,316.27

INDIAN ORCHARD BRANCH

Salaries.....	\$1,499.17
Books and periodicals.....	674.53
Fuel, light, telephone, and miscellany.....	369.91
	<hr/>
	\$2,543.61

MEMORIAL SQUARE BRANCH

Salaries.....	\$4,377.86
Books and periodicals.....	3,488.93
Furniture and shelving.....	1,340.25
Repairs and finishing basement.....	2,721.20
Fuel, light, telephone, and miscellany.....	1,445.22
	<hr/>
	\$13,373.46

ART MUSEUM

Salaries.....	\$3,555.79
Salaries, Hall of Sculpture.....	372.41
Cleaning, repairs, light, and miscellany.....	1,692.04
	<hr/>
	\$5,620.24

MUSEUM NATURAL HISTORY

Salaries.....	\$1,508.40
Books for Catherine Howard Library.....	204.25
Furniture and repairs.....	413.03
Light, telephone, cleaning, and miscellany.....	632.57
Lectures.....	150.25
	<hr/>
	\$2,908.50

Total expenditures.....	\$94,654.05
Balance.....	55.84
	<hr/>
	\$94,709.89

CITY LIBRARY ASSOCIATION

G. W. V. SMITH ART CURATOR'S ACCOUNT

Balance May 1, 1917.....	\$ 1,120.20
Interest on bank balance.....	20.82
Balance April 30, 1918.....	<u>1,141.02</u>

DAVID AMES WELLS ENDOWMENT FUND

Balance May 1, 1917.....	\$ 1,123.88
Proceeds of sale of \$5,000.00 American Steel Foundries 6's 1935.....	5,000.00
Interest on bank balance.....	35.91
Proceeds of sale of \$6,000.00 U. S. Government Liberty Loan bonds 4's 1942.....	5,818.20
	<u>\$ 11,977.99</u>

Less:

Purchase of \$6,000.00 U. S. Government Liberty Loan bonds 4's 1942.....	\$6,000.00	
Purchase of \$6,000.00 New York Central Railroad Company 6's 1935.....	5,695.50	
Transfers.....	22.47	11,717.97
Balance April 30, 1918.....		<u>\$ 260.02</u>

CHARLES M. KIRKHAM FUND FOR BEAUTIFYING GROUNDS

Balance May 1, 1917.....	\$ 134.48
Interest on \$3,000.00 Southern Pacific Ry. Co, 4's 1949.....	\$120.00
Interest on \$2,500.00 American Tel. & Tel. Co., 4's 1929.....	100.00
Interest on \$1,000.00 Baltimore & Ohio R. R. Co., 5's 1995.....	50.00
	<u>270.00</u>
Proportion of selling price of \$800.00 U. S. Government Liberty Loan bonds 4's 1942.....	242.97
Transfer.....	7.03
	<u>\$ 654.48</u>

Less:

Proportion of purchase price of \$800.00 U. S. Government Liberty Loan bonds 4's 1942.....	\$250.00	
American Awning and Tent Company.....	18.09	268.09
Balance April 30, 1918.....		<u>\$ 386.39</u>

FUND FOR SCIENCE MUSEUM PUBLICATIONS

Balance May 1, 1917.....	\$ 210.99
Balance April 30, 1918.....	<u>\$ 210.99</u>

SHERMAN D. PORTER FUND

Balance May 1, 1917.....	\$ 177.62
Interest on \$3,000.00 Baltimore & Ohio R. R. Co., 5's 1995.....	\$150.00
Interest on \$1,000.00 Adams Express Company, 4's 1948.....	40.00
Interest on \$1,000.00 Southern Pacific Ry. Co., 5's 1934.....	50.00
	<u>240.00</u>
Proportion of selling price of \$800.00 U. S. Government Liberty Loan bonds 4's 1942.....	242.97
Final payment of legacy.....	341.41
Transfer.....	7.03
	<u>\$ 1,009.03</u>

TREASURER'S REPORT

Less:

Proportion of purchase price of \$800.00 U. S. Government Liberty Loan bonds 4's 1942.....	\$ 250.00
Balance April 30, 1918.....	\$ 759.03

DENTAL LIBRARY FUND

Balance May 1, 1917.....	\$ 292.88
Interest on balance.....	11.80
Balance April 30, 1918.....	\$ 304.68

The only outstanding indebtedness of the City Library Association is a note to the William Merrick Endowment Fund for the sum of \$30,000.00. This note was made by the order of the Board of Directors to keep the William Merrick Endowment Fund alive.

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ANNUAL REPORT
OF
THE CITY LIBRARY ASSOCIATION
of
SPRINGFIELD, MASSACHUSETTS

For the Year Ending April Thirtieth

1919

CITY LIBRARY
ART MUSEUM
MUSEUM OF NATURAL HISTORY

Officers of the City Library Association, 1918-1919

PRESIDENT: NATHAN D. BILL
VICE-PRESIDENT: ROBERT O. MORRIS
TREASURER: HENRY H. BOWMAN
ASSISTANT TREASURER: HENRY M. MORGAN
CLERK: HILLER C. WELLMAN

Directors

BEEBE, HENRY J.	PACKARD, AZEL A.
CARROLL, JAMES B.	PRATT, GEORGE DWIGHT
CORCORAN, LUKE	SKINNER, HENRY H.
GILLETT, FREDERICK H.	SMITH, G. W. V.
HAYNES, STANFORD L.	WALLACE, A. B.
KIRKHAM, JAMES W.	WESSON, WALTER H.

ARTHUR G. ADAMS, *Mayor*.

CHRISTOPHER G. SIMPSON, *President of the Common Council*.

JAMES H. VAN SICKLE, *Superintendent of Schools*.

Auditors

W. C. SIMONS

A. W. DAMON

Standing Committees

On Finance—Henry H. Skinner, Nathan D. Bill, Stanford L. Haynes, James W. Kirkham.

On Art—G. W. V. Smith, A. B. Wallace, Walter H. Wesson, Azel A. Packard.

On City Appropriations—Henry H. Skinner, Henry J. Beebe, Robert O. Morris, A. B. Wallace, George Dwight Pratt.

On Museum of Natural History—Robert O. Morris, Walter H. Wesson, Frederick H. Gillett.

On Library—Luke Corcoran, G. W. V. Smith, James B. Carroll, Henry H. Skinner, George Dwight Pratt.

On Insurance—Nathan D. Bill.

Librarian—Hiller C. Wellman.

Director of the Art Museum—George Walter Vincent Smith.

Curator of the Museum of Natural History—Grace Pettis Johnson.

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1918/19

Report of the President

Notwithstanding serious handicaps, such as the influenza epidemic which necessitated closing the juvenile departments of the library and museums for seven weeks, the preoccupation of the public during the first six months with knitting and other war work, the employment of many young people in industry—in spite of these and other distractions, both our library and museums have had a busier and more active year, with larger results, than ever before.

To the Art Museum, Mr. George Walter Vincent Smith has continued, as in years past, quietly and unostentatiously adding priceless objects of art, installing besides many other accessions a case filled with Philippine curios and an exhibit of beautiful Colonial china. A series of Saturday afternoon stories or lectures for children has been most successful in giving information that leads to a better understanding and fuller appreciation of the exquisite contents of the museum.

Furthermore, Saturday afternoon drawing classes for the children, for which art teachers from the public schools have volunteered supervision, have resulted in some very creditable work.

The Museum of Natural History has been visited by an increasing number of people. A course of story-telling has given to more than a thousand children information regarding the geological formation of the city and the surrounding hills and valleys, the character of our local industries, and the sources of our food and clothing, followed by imaginative excursions to the West and South and the countries across the sea. A small branch has been opened in the Boys' Club, with frequently changing displays. Work with the Boy Scouts and the Girl Scouts has been prosecuted, and regular lessons on bird lore have been provided for the scout masters. The Museum has served also as headquarters for the school garden work. The lecture work for the season has been very satisfactory, and all the other customary activities of recent years have been carried on as usual.

The continuous and rapid growth in the use made of the library is indicated by the statistics of books borrowed. The figures at five year intervals show that in 1899 the annual circulation was 150,424 volumes; in 1904 it had risen to 322, 581 volumes; in 1909, to 506,731 volumes; in 1914, to 655, 903 volumes; while the past year it amounted to 940,183 volumes. At the beginning of the period the number of books available was less than 90,000, while today there are on our shelves more than 260,000 volumes.

Americanization work, which has only recently engrossed a large share of public attention, has been an active concern of the library for several years past. A striking feature of this season's work was an exhibition in the library building arranged by the Springfield Federation

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of Women's Clubs, showing some eight hundred articles representing the handicraft of seventeen different nationalities. It was attended by persons in native costume, and accompanied by characteristic songs, choruses, dances, music, and recitations. During the four days the exhibition was open it attracted more than 5,000 visitors, native and foreign. Meanwhile, throughout the year, books in large numbers have taken American ideals to our foreign people. Classes from the evening schools and other groups have been conducted through the library and furnished with books to help in their studies, especially in the acquirement of the English language. Groups preparing for naturalization have likewise had the resources of the library explained to them, and make large use of the books on government and history. Through the coöperation of Mr. Robert O. Morris, the Clerk of courts, each man who makes a declaration preparatory to naturalization is given a card which on presentation at the library entitles him to its use without further formalities. Circulars in foreign tongues have been printed and distributed to tell newcomers of the opportunities open to them in the library, and at the same time a list of books on Americanization has been printed for our citizens who are taking so active and intelligent interest in this important problem.

This is only one example of the many new forms of service which have fallen to public libraries within recent years; the work with the blind is another. In Springfield the extent to which the library is drawn upon by manufacturers and business men, by ambitious young workmen studying up their trades, and by readers old and young seeking general information, is large. Yet many other needs and opportunities present themselves, if funds were available. New branches are desired, more and cleaner books are needed, an engineering department and other departments of specialized information, costly works for the genealogical section and the art library, further assistance to the high schools—in a score of ways the library could increase its usefulness if its resources permitted. In view of financial conditions of late, it has seemed desirable to conduct its constantly growing work with all reasonable economy, and to extend the scope of its service conservatively. The city supports the institution generously, and undue calls on the public purse at this time seem undesirable. The activities already instituted are expanding and must be cared for; but desirable extension of our work in new fields, it would appear, must await additional endowments. Many benefactors have contributed in the past to make the institution what it is today, and any additional funds which generous citizens may from time to time see fit to add to our endowment, they may be sure will yield each year a harvest of real and practical advantage to the whole community.

NATHAN D. BILL, *President.*

Report of the Librarian

The war time activities of the library continued up to the day of the armistice, and thereafter as necessary. The character of this work was described by request at the annual convention of American Library Association, and as it was also chronicled with some detail in the last annual report, it will suffice to state here that to the campaigns for food-conservation, thrift, fuel-saving, gardening, knitting, the raising of patriotic funds, and the sale of thrift stamps and liberty bonds, to the furnishing of information for munitions-makers and for officers and men in the service, and to every other feasible form of war work, the library gave itself with energy and success. It is interesting to note that Springfield people contributed as reading matter for our soldiers and sailors nearly 40,000 books and uncounted thousands of periodicals. This was a generous response; the same rate maintained throughout the country would have yielded more than thirty million volumes. About three quarters of our books were shipped to the men overseas, while others were sent to Devens and similar camps and stations in the United States. The City Library was charged with seeing that suitable libraries were provided for all men in service in this immediate vicinity; and it maintained collections at the United States Armory, the Watershops, the State Armory, the Hostess House, the Eastern States Exposition Grounds, the World War Veterans' Club, the Knights of Columbus Hut, the Salvation Army Rooms, the Students' Army Training Corps, and supplied books also to groups of soldiers guarding railroads and bridges. To Mr. Ralph P. Boas we were greatly indebted for the admirable service which he gave daily last summer in administering the important technical library that was deposited in the Technical High School for the men in training there; and to Mr. Edward A. Appleton, for his kindness in aiding in general supervision over the places to which the library supplied books.

Statistics

Owing to a variety of causes, chiefly the prevalence of influenza, the absorption of the public in war work, and the employment in industry of many young people, the circulation of books during the first six months of the year fell 36,000 volumes below that for the corresponding period the year before; but with the return of normal conditions during the second half of the year, the circulation grew at such a rate that for the entire twelve months it amounted to 940,183 volumes, or 16,061 volumes more than in any previous year. The class of books at the main library showing the largest rate of increase in the adult circulation, with a gain of 15%, was, as might be expected, history, since in that category fall the multitude of books written about the war. The reading of fiction increased only 3%.

The library's books are available at 405 distributing points throughout the city, the great majority of which are school class-rooms; while the remainder comprise factories, offices, stores, Sunday schools, fire stations, and various institutions. Deposits of books are in this way sent freely wherever they will be of use to a group of readers, the only formality being the filing of a guarantee to protect the library against loss. Six thousand one hundred and seven persons have taken out library cards during the year. Eighty-four pictures and 289 books have been lent to other libraries, the greatest number being borrowed by the library at Camp Devens for the use of officers and men seeking special information. Fifty-eight books have been borrowed from other libraries all the way from Boston and Cambridge on the east, to Washington on the south, and Columbus, Ohio, and Chicago to the west, for the use of research workers in Springfield requiring unusual publications not to be found in our own collection. Through this system of reciprocal lending among libraries, almost any desired book, however rare or special, can be obtained for use by scholars in our own community. Twenty thousand four hundred and sixty-five volumes have been added by gift or purchase, while 5,075 volumes have been withdrawn because worn out or otherwise useless, making a net gain of 15,390 volumes, with a total of 260,035 volumes available in the collections at the main library and branches.

Publications

Among the publications of the year have been two lists of delightful autobiographies, one entitled "Self Revelation" and the other "Memories of Childhood and Youth;" a supplement to the "Fiction Catalogue;" a reading list on Russia; a selection of "Nonsense and Humor;" a list on "Outdoor Sports;" a folder on the foreign people in the United States; vacation reading lists for children; a slip entitled "Helps for the New Citizen;" a reading list on "The League of Nations;" and a pamphlet containing the text of "The President's Fourteen Peace Points" with references for reading under each point. This last publication proved so popular that a second supply had to be printed within a few weeks. Four of the lists, and an earlier one containing "Books on the Great War", were reprinted by the American Library Association to the number of more than ninety thousand copies for the use of other libraries. Such lists excite interest in good books and stimulate reading on current questions. For the same purpose, special collections of books have been grouped in the delivery room, and exhibitions of photographs, engravings, and other pictures have been held at frequent intervals in the art room, the delivery room, and the periodical reading room. One of the exhibits that was very popular consisted of a collection of stamps issued in various countries as a consequence of the war, lent by Mr. William C. Stone, which revealed a surprising amount of history.

The Children's Department

Beginning February 1st, the fee for the overdetection of children's books was reduced from two cents to one cent a day. A cent means much

more to most children than two cents to an adult; and furthermore, children's books are much less costly, so that whether the charge be regarded as a penalty or as a fee, the lower scale for children's books seems reasonable, and works well. The exhibits in the children's room included a series relating to various lands across the sea, which has done something to inspire respect among many of the children for the countries from which their parents have come. It is interesting to know that with children, as with older people, fashions change, and the latest books are wanted. The younger readers are inclined to desert their long loved boarding school tales and athletic stories for war narratives with their submarine chasers, aeroplane heroes, and exploits of cavalry, infantry, and artillery. Summer reading clubs which were formed at the main library and the branches were successful in introducing many children to the better books.

The Art Library

On the shelves and in the cupboards in the art room, Springfield people have access to an unusually rich collection of valuable books and portfolios relating to the fine arts. This is the more noteworthy because there is no endowment such as many libraries have for the purchase of these works. The collection is extensively used, not only by persons interested in painting, architecture, and the other fine arts, but also by illustrators, designers, and persons engaged in the applied arts and industrial design. The Grace Rumrill music fund has made possible a large collection of music of all kinds, which is much appreciated. Its use is facilitated by indexes to all the separate pieces in the collections of piano music, and by an index of songs, to which has been added this year an index to the poets who have written songs. The collection of pictures arranged by subjects, and comprising a quarter of a million examples, is drawn on by illustrators, club workers, newspaper men, designers, and school teachers. About 80,000 pictures were thus borrowed from the main library and branches last year.

Branches

The crowded condition of the Memorial Square Branch Library has been happily remedied by opening the large and attractive basement which makes an admirable children's room. Story hours and reading clubs have been organized for the children with excellent results. The Forest Park Branch Library, which when the present building was opened ten years ago circulated 36,671 volumes, circulated last year 167,084 volumes. This circulation was almost 10% more than in the preceding year, and the need for larger quarters is obvious. The development of the reference work with the schools this season has been a feature. The Indian Orchard Branch Library has had a satisfactory year, but the increased car fares have led some of its best patrons to move to the city and so prevented a gain in circulation. At all of the branches, exhibits, picture bulletins, special collections of books, and

similar features have served to make the buildings centers of interest in their communities.

Acknowledgments

From the late M. Louisa Graves the library has received a bequest of Japanese curios to be known as the Putnam-Graves collection. Captain J. Brewer Corcoran caused to be made and presented to the library seventy enlargements of official photographs relating to the 104th regiment in France, which are not only of great current interest, but also of lasting historical value. Mrs. Frederick Harris and Mr. Frederic M. Jones presented twenty-seven war posters, chiefly French, of great artistic excellence as well as of historical significance. Mrs. James W. Kirkham and Mrs. A. S. Martin have given welcome additions to the music department; through the kindness of Mr. Oliver H. Dickinson, 487 volumes were received from the estate of the late Harriet S. Dickinson; Mrs. Albert C. Starr gave current French books; Mr. Francke W. Dickinson, a further installment of miscellaneous books; Mr. Albert P. Lantry, thirteen reproductions of old Springfield maps; Mr. Frank Farnsworth Starr, valuable genealogies; Mrs. Walter H. Wesson, a set of the "Historians' History of the World" in twenty-five volumes; and many other persons too numerous for separate mention have presented books and pamphlets and other articles, which have been duly acknowledged and are deeply appreciated.

Affiliated Societies

The Poetry Society in its second season has met with continued success. Its meetings in the library hall, which are entirely free to the public, have afforded delightful opportunities for hearing distinguished poets as well as for more intimate study and discussion.

The Reading Circle of the Blind has completed its fifth season, with weekly meetings on Saturday afternoons, conducted by Miss Ida F. Farrar of the library staff, with the generous assistance of Miss Clara M. Shurtleff. A score of the busiest people in Springfield have taken time to address the Circle, and others have kindly lent their automobiles to transport the members to and from the library. Mrs. James H. Van Sickle, Miss Josephine Smith, Mrs. H. H. Bowman, Mrs. J. R. Lyman, the Misses Annie C. and M. Louise Stebbins, and Mrs. Charles H. Barrows, have opened their homes for musicals and other meetings which could not so advantageously be held in the library building. The people who have given this generous assistance may be assured that probably no work with which the library is concerned affords keener enjoyment.

Respectfully submitted,

HILLER C. WELLMAN, *Librarian.*

Statistics of Accessions for 1918-1919

	Volumes	
Added by purchase, Central Library.....	11,155	
Added by purchase, Branches.....	7,318	
Added by gift.....	1,992	
Total gain.....		20,465
Withdrawn.....		5,075
Net gain.....		15,390
In the library May, 1, 1918.....		244,645
In the Library May 1, 1919.....		260,035

Statistics of Circulation 1918-1919

	ADULT Volumes	JUVENILE Volumes	Volumes
Fiction.....	180,069	28,631	
Periodicals.....	9,332	1,845	
General Works.....	243	436	
Philosophy.....	3,513	105	
Religion.....	3,234	1,276	
Sociology.....	5,781	1,248	
Education.....	1,678	142	
Philology.....	1,912	94	
Natural Science.....	3,814	9,315	
Medicine.....	2,674	384	
Useful Arts.....	11,208	1,808	
Fine Arts.....	5,240	609	
Music.....	7,556	98	
Amusements.....	1,971	1,357	
Literature.....	11,149	6,462	
Foreign Literature.....	9,113	110	
History.....	12,695	5,910	
Biography.....	4,176	3,024	
Geography.....	4,649	7,422	
Myths, etc.....		12,384	
Juvenile (jj).....		22,764	
	280,007	105,424	
Total circulation from Central Library.....			385,431
Indian Orchard Branch.....			37,816
Forest Park Branch.....			167,084
Memorial Square Branch.....			171,959
Soldiers' Libraries.....			2,421
			764,711
Estimated circulation at schools and other agencies.....			175,472
Total number of volumes circulated for home use.....			940,183
Number of pictures circulated.....			79,998
Deposited in 372 class rooms:			
Supplied for one half school year.....			25,337
Renewed for second half school year.....			9,487
			34,824

Report of the Art Museum

Although this has been a year when the interests and activities of the community have been centered on the war, with the exception of the months when things were practically at a standstill, on account of the influenza, the attendance at the Art Museum has increased. Especially is this true of those who visit the museum for a purpose.

We have enlarged our activities during the year, a series of thirteen story hours for the children has been given by one of the assistants, Miss Cordelia C. Sargent, in the museum hall on Saturday afternoons.

The first talk was devoted to Christmas stories and was followed by Demeter and Persephone, the story of a Mother's love; Orpheus and Eurydice; Cupid and Psyche; Mercury, the Divine Messenger; A Japanese Home; The Life of a Japanese Girl; The Boy's Festival; Japanese Landscapes and Gardens; Japanese Shops; Dolls representing different classes of Society in Japan; The Story of Bertrand the Brave, a Boy of the Middle Ages; and Joan of Arc, the Little Maid of France. These were illustrated by photographs and lantern slides. After the talks the children were given an opportunity to visit the Art Museum where their attention was called to objects in the collection which had a direct bearing on the stories. Twelve hundred and five children were entertained at these talks and many more were turned away for lack of room.

On April 26th the Joan of Arc story was repeated at the Indian Orchard Branch Library to 80 children. Not only the children but the mothers seemed to appreciate these talks. One mother who came with her small boys expressed her gratitude that her children could come, see pictures and learn something, instead of going to the "movies" where so many objectionable pictures are shown.

During the past season several children have availed themselves of the privilege of coming to the museum to sketch from different objects in the collection with very gratifying results. The drawing teachers of the city schools becoming interested in the work done by these children have very generously given of their own time and alternated in coming to the museum on Saturday afternoons since the first of March, thus giving the children the benefit of criticism and instruction. If the School Board could see their way to cooperate with us and furnish a teacher who could come regularly every Saturday afternoon for the coming year I feel sure the results would well repay the outlay. The children have been allowed to select their own subjects and work either in the Museum of Natural History or the Art Museum.

Forty-one classes and clubs have been received at the museum and decent service given when desired.

To the collections Mr. Smith has added a Philippine exhibit arranged in a case in the lower hall. Among these are examples of hand-

woven cloths; embroidered clothing; a man's suit in which the decoration is produced by tying before the garment is dyed; hand made buyo boxes of silver with repoussé decoration; and examples of their home made weapons, the *kampilan*, *barong*, *pira*, and *kris*.

Another case in the lower hall contains a few pieces from Mrs. Smith's interesting collection of early English china. A Staffordshire tea set made by Enoch Wood and Sons in the early 19th century has blue scenery with copper luster bands, a very unusual combination and very effective. There are also examples of copper luster, and the rare white Castleford ware, the latter dating from 1770 to 1790. The lower part of the case is given up to part of a set of Dresden china, with a few pieces of Royal Doulton, both of which are decorated in pink. These are just a few pieces from a very interesting collection of Colonial and early English china in the possession of Mrs. Smith which she would be glad to add to the permanent collections in the museum if there was room for them.

The regular routine work of cataloguing and labeling the collections has progressed as usual.

A change has been made in the time of opening the museum to the public. Last summer we had so few visitors between the hours of five and six that it was thought best to try the experiment of keeping to the opening hours of one to five throughout the year, which seems to be working very well as we have many more visitors between the hours of one and two than we did between five and six. This arrangement really extends the museum hours as the Natural History Museum on account of the large numbers of children, continues the two to six time, so that visitors desiring to come early may visit the Art Museum and later the Museum of Natural History.

The practice of lending photographs from the Hall of Sculpture has been continued, as have also the monthly exhibitions of special subjects. Just now a very interesting collection of photographs is being shown. These are the property of the National Sculpture Society, and are largely of war memorials which are of especial interest at this time.

To those who visit the Art Museum the need of an extension of the present building is very apparent if the museum is to fulfil its mission of the "greatest good to the greatest number." We need rooms not only for the display of material now packed away, but rooms in which to work, if the valuable art collection is to adequately fill the needs of our fast developing city.

Respectfully submitted,

ELEANOR A. WADE, *Curator*.

Report of the Museum of Natural History1919

For forty-six days children were not admitted to the Museum and the decrease in average attendance during that time from ninety persons per day to fifteen daily indicated in a measure who uses the museum. This fact suggested that additional attention might well be given to features of work for children and consequent efforts have attracted greater numbers of young people, The total attendance for the year, 31,118 persons, is an unexpected increase over last year's records.

Branch Museum

At the Boy's Club a small branch has been opened. From duplicate collections at the museum changing exhibits of mammals, reptiles, birds and fishes are supplied and accompanied by carefully prepared explanatory labels. Needless to say a cordial invitation to visit the main museum is included.

Work With Scouts

For scouts, weekly lessons or field excursions have been conducted, and scout masters have asked for and been given biweekly bird lectures.

Museum Clubs

Nature study clubs have sprung up among the boys and girls who frequent the Museum and these interests are fostered by the staff supplying practical instruction and aid in identification of material. Empty cupboards and drawers house collections which are acquired on excursions or given by visitors who become interested in the work of the children. The young people are eager for field work with a qualified conductor. To a limited extent arrangements have been made for such trips and while some way must be found to meet this demand it is difficult to see how field work to any extent can be added to the present manifold requirements made of the Museum's small staff.

Lectures and Story-telling

The usual free lecture work has included a series of talks on local natural history by Miss Fannie A. Stebbins, and single lectures by Mr. T. Nelson Dale on local geology, James H. Emerton on spiders, and two lectures on birds by noted ornithologists.

Saturday morning story-telling for children has been attempted for the first time. Nineteen lectures were given with a total attendance of 1402 children who, in these illustrated stories, have been told of the formation of the hills, valleys and rivers about their city; of this re-

gion's animal and plant life and the reasons for its conservation; of the sources of their food and clothing and the processes of production. By means of lantern slides they were taken to the sea, and wonders of marine life revealed to them, and again by pictures they crossed the ocean to countries from which many parents came.

For these stories, children assembled early at the Museum and while waiting, were shown objects related to the talk to be given. Surely the young people derived much benefit from the course and such work may well be continued and amplified.

Contribution from Children

These privileges tend to develop with the children a personal interest in the Museum and eagerness to serve it, and their endeavors have resulted in some noteworthy additions to the collections.

Designs have been made for posters announcing lectures or special exhibits. Sketches have illustrated points to be brought out in story or lecture or, as in the case of the cotton exhibit, by representation of the flowering plant, an important part of a series has been supplied.

Recently a merchant asked for pictures to show the life history of the common clothes moth. The exact thing desired was not in our picture collections but was made by one of our boys and used in a Main Street window display of furs.

From a text book illustration Frank Korkosz has made and given to the Museum a plastacine model of the extinct monsters that left footprints in Connecticut Valley sandstone. The lion done by this boy of sixteen is a choice production and compared with the work of expert modellers Frank's work stands high.

There are other children who are proud to be contributors to the seasonal exhibits and assist at lectures, and all of these young people appreciate that a return is made for such service by personal interest in their various endeavors. Occasionally there is a special treat for them such as an evening at the Central High School with the use of the big telescope by courtesy of Mr. Clarence Hall.

In thus modelling, sketching and collecting these children are learning valuable lessons, and by serving the institution they are establishing interests and relationships likely to promote good citizenship.

Americanization Meeting

To the Americanization movement the Museum has offered itself and opened the building for an evening gathering of foreign born parents. Free to all the Museum served as a good example of the city's educational advantages. Its collections were eagerly scanned for what pertained to the mother country and the Maude Brewer Lang collection of dolls from many lands was a particular attraction.

Special Exhibits

The Museum felt it a privilege to exhibit this famous collection which attracted hundreds of visitors, and to arrange for the lecture on dolls

given by Mrs. Lang and Dr. George E. Dawson. As a permanent part of this Museum which was founded largely through the efforts of Mrs. Lang's grandfather, the late Daniel L. Harris, this collection would be of rare interest and value.

Coöperation with the Schools

Conferences between the Supervisor of Nature Study and the Curator result in systematic coördination of school and museum work. Material is assembled at the museum for different periods of the school courses of study. At meetings of teachers called by the supervisor the use to be made of such material is indicated, and this year there has followed the coming of one thousand and fifty-two pupils for assigned observation study. Added to this are the daily questions from many children concerning exhibits relating to school work. For the school Garden club the Museum has become headquarters.

Dr. George E. Dawson reports on the work of the Psychological Laboratory as follows:

The Psychological Laboratory is steadily establishing a wider contact with the life of the community. This year the Springfield Branch of the Massachusetts Society for the Prevention of Cruelty to Children and the Home Service Section of the Red Cross have referred cases for examination. Increasing numbers of young men and young women from the High Schools and the upper grades of the Grammar Schools have applied on their own initiative, for examinations as to vocational fitness, in one instance a group of sixteen from the same high school having thus applied. All this is in addition to some three hundred cases referred by the public school officials, Judge Heady's Court, and other community agencies.

Hospitalities to Societies

The Museum still fosters interests of its affiliated societies, and by jointly conducting lectures both the clubs and the Museum are able to prepare better programs than could be provided by either organization working alone. The flower shows of the Garden club, two of which were held the past year, are always an attraction.

The Museums and the Library

The usual cordial relationship between the Museum and the Library results in united effort to carry out the purposes of the Association. From the children's room at the Library books relating to exhibits have kept the children's table at the Museum interesting. In turn the Museum is always glad to supply special exhibits for the branch libraries, and story-telling carried on by the Museum and always well advertised at the branches has been repeated at one of the branches. Working together the museums have made the 1919 story-telling a success.

The Catherine L. Howard Library

At the annual meeting of the Catherine L. Howard Library Association its members voted to add to its library as funds permit, lantern slides to be used for lectures, lessons and story-telling. It was also voted to include in the purchase of books a limited number of reference books suitable for children. By so enlarging its scope the Howard library greatly increases its influence. The Museum is indeed fortunate to be assisted in its work by the Howard Library association.

Accessions

Miss Mary A. Booth has been one of the principal contributors this year. Displayed in a case made expressly for her gift there is a collection of Miss Booth's photomicrographs such as have won honors at the world's great expositions. It is gratifying to have in the Museum of Miss Booth's home city a properly installed and representative collection of the work of so famous a microscopist.

A finely mounted black bear, Mr. Nathan D. Bill's contribution, fills a long felt want at the Museum, and by Mr. Luman Andrews, another donor, who like Mr. Bill rarely fails with his yearly contribution, several thousand pressed plants have been added to the Museum's herbarium.

The name Daniel L. Harris again appears on the Museum annals with the gift of relics of the late war, and to all departments much appreciated gifts have continued the steady work of completing collections.

Respectfully submitted,

GRACE P. JOHNSON, *Curator.*

Treasurer's Report

FOR THE FISCAL YEAR ENDING APRIL 30, 1919

RECEIPTS

Balance brought forward from year 1917-1918.....	\$ 55.84
Appropriation from City of Springfield.....	81,000.00
Dog tax from City of Springfield.....	4,853.55
Alice W. Adams fund.....	45.00
Aston fund.....	50.00
Fanny Hazard Bond fund.....	200.00
John Bryant fund.....	225.00
Chester W. Chapin fund.....	500.00
O. H. Greenleaf fund.....	300.00
Augustus G. Hazard fund.....	250.00
J. Searle Hurlbut fund.....	25.00
Charles M. Kirkham fund.....	220.00
Charles S. Marsh fund.....	250.00
Charles Merriam fund.....	385.00
Sarah J. Moore fund.....	320.00
Caroline L. Rice fund.....	250.00
Grace Rumrill music fund.....	560.00
Joseph L. and Margaret H. Shipley fund.....	107.50
George W. Tapley fund.....	45.00
James M. Thompson fund.....	250.00
Dr. William Tully fund.....	25.00
David Ames Wells fund.....	5,627.52
Net income, Edwards Street House.....	256.79
From Catherine L. Howard Library Association.....	204.25
Interest on bank balance.....	524.52
Fees for overdetection of books.....	4,949.39
Receipts from duplicate collection in excess of cost of books.....	90.59
Miscellaneous receipts.....	301.96
Total receipts.....	<u>\$101,871.91</u>

EXPENDITURES

GENERAL EXPENSES

Engineers, janitors and watchmen.....	\$ 4,722.46
Fuel.....	6,358.98
Insurance, repairs, and miscellany.....	2,820.98
Refunded to Sherman D. Porter fund.....	1,000.00
	<u>\$14,902.42</u>

LIBRARY EXPENSES

Salaries, librarian and assistants.....	\$32,427.34
Messengers.....	1,402.45
Sunday and holiday service.....	367.31
Cleaning.....	1,432.50
Books.....	8,395.17
Periodicals.....	1,154.77
Binding.....	2,577.77

TREASURER'S REPORT

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Printing.....	\$1,069.09
Stationery and supplies.....	1,362.99
Furniture and improvements.....	177.14
Repairs.....	701.92
Light and power.....	1,460.72
Postage.....	538.87
Express and freight.....	373.03
Telephone.....	234.89
Miscellany.....	340.54

\$54,016.50

FOREST PARK BRANCH

Salaries.....	\$5,400.88
Books, periodicals, and binding.....	3,418.54
Fuel, light, telephone, and miscellany.....	1,236.17

\$10,055.59

INDIAN ORCHARD BRANCH

Salaries.....	\$1,566.60
Books, periodicals, and binding.....	756.22
Fuel, light, telephone, and miscellany.....	952.13

\$3,274.95

MEMORIAL SQUARE BRANCH

Salaries.....	\$5,261.65
Books, periodicals, and binding.....	4,083.73
Fuel, light, telephone, and miscellany.....	1,555.13

\$10,900.51

ART MUSEUM

Salaries.....	\$3,610.78
Salaries, Hall of Sculpture.....	363.88
Cleaning, repairs, light, and miscellany.....	1,561.66

\$5,536.32

MUSEUM NATURAL HISTORY

Salaries.....	\$1,555.60
Books for Catherine Howard Library.....	164.56
Furniture and repairs.....	456.32
Light, telephone, cleaning, and miscellany.....	626.92
Lectures.....	315.37

\$3,118.77

Total expenditures.....	\$101,805.06
Balance.....	66.85

\$101,871.91

G. W. V. SMITH ART CURATOR'S ACCOUNT

Balance May 1, 1918.....	\$1,141.02
Interest on bank balance.....	21.65

Balance April 30, 1919.....	\$1,162.67
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DAVID A. WELLS ENDOWMENT FUND

Balance May 1, 1918.....	\$ 260.02
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CITY LIBRARY ASSOCIATION

Less:

Part purchase of \$1,000.00 Southern Pacific Ry., 5's.....	\$ 59.03	
Part purchase of \$1,000.00 Chicago, Milwaukee & St. Paul R. R. 5's.....	200.99	<u>260.02</u>

CHARLES M. KIRKHAM FUND FOR BEAUTIFYING GROUNDS

Balance May 1, 1918.....		\$386.39
Interest on \$3,000.00 Southern Pacific Ry., 4's.....	\$120.00	
Interest on \$2,500.00 American Tel. & Tel. Co., 4's.....	100.00	
Interest on \$1,000.00 Baltimore & Ohio R. R., 5's.....	50.00	<u>270.00</u>
		\$656.39
Expenditures.....		<u>656.39</u>

FUND FOR MUSEUM PUBLICATIONS

Balance May 1, 1918.....	<u>\$210.99</u>
Balance May 1, 1919.....	\$210.99

INSURANCE PREMIUM RESERVE FUND

.....	\$650.00
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SHERMAN D. PORTER FUND

Balance May 1, 1918.....		\$ 759.03
Interest on \$1,000.00 Adams Express Co., 4's.....	\$ 40.00	
Interest on \$1,000.00 Southern Pacific Ry., 5's.....	50.00	
6 mos. interest on \$1,000.00 Southern Pacific Ry., 5's.....	25.00	
Interest on \$3,000.00 Baltimore & Ohio 5's.....	150.00	
Transfer to balance investment.....	59.03	
Refunded.....	<u>1,000.00</u>	<u>1,324.03</u>
		\$2,083.06

Less:

Purchase of \$1,000.00 Southern Pacific 5's.....	<u>918.06</u>
Balance May 1, 1919.....	\$1,165.00

DENTAL LIBRARY FUND

Balance May 1, 1918.....	\$304.68
From Dr. H. E. Hosley, Chairman.....	18.58
Interest.....	<u>12.28</u>
Balance May 1, 1919.....	\$335.54

The only outstanding indebtedness of the City Library Association is a note to the William Merrick Endowment Fund for the sum of \$30,000.00. This note was made by the order of the Board of Directors to keep the William Merrick Endowment Fund alive.

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ANNUAL REPORT
OF
THE CITY LIBRARY ASSOCIATION
of
SPRINGFIELD, MASSACHUSETTS

For the Year Ending April Thirtieth

1920

THE LIBRARY OF THE
APR 1 1924
UNIVERSITY OF ILLINOIS

CITY LIBRARY
ART MUSEUM
MUSEUM OF NATURAL HISTORY

Officers of the City Library Association, 1920-1921

PRESIDENT: NATHAN D. BILL
VICE-PRESIDENT: ROBERT O. MORRIS
TREASURER: HENRY H. BOWMAN
ASSISTANT TREASURER: HENRY M. MORGAN
CLERK: HILLER C. WELLMAN

Directors

CARROLL, JAMES B.	PRATT, GEORGE DWIGHT
CORCORAN, LUKE	SKINNER, HENRY H.
GILLETT, FREDERICK H.	SMITH, G. W. V.
GRIFFIN, SOLOMON B.	WALLACE, A. B.
KIRKHAM, JAMES W.	WESSON, WALTER H.
PACKARD, AZEL A.	

ARTHUR A. ADAMS, *Mayor*.

ARCHER R. SIMPSON, *President of the Common Council*.

JAMES H. VAN SICKLE, *Superintendent of Schools*.

Auditors

W. C. SIMONS

A. W. DAMON

Standing Committees

On Finance—Henry H. Skinner, Nathan D. Bill, James W. Kirkham.

On Art—G. W. V. Smith, A. B. Wallace, Walter H. Wesson, Azel A. Packard.

On City Appropriations—Henry H. Skinner, Robert O. Morris, A. B. Wallace, George Dwight Pratt.

On Museum of Natural History—Robert O. Morris, Walter H. Wesson, Frederick H. Gillett.

On Library—Luke Corcoran, G. W. V. Smith, James B. Carroll, Henry H. Skinner, George Dwight Pratt.

On Insurance—Nathan D. Bill.

Librarian—Hiller C. Wellman.

Director of the Art Museum—George Walter Vincent Smith.

Director of the Museum of Natural History—Grace Pettis Johnson.

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In Memoriam

HENRY J. BEEBE

The Directors of the City Library Association of Springfield record with deep sorrow their sense of loss in the death of Henry J. Beebe.

For twenty-two years Mr. Beebe served as a member of this Board. He was active in the special committee which erected the Memorial Square Branch library building, and was chairman of the committee which erected the branch libraries at Forest Park and Indian Orchard. Throughout his long connection with the City Library Association, he was faithful in attendance at meetings, ready to give generously of his time and thought, convinced of the great value to the community of our library and museums.

The Directors wish also to extend to the members of Mr. Beebe's family their sincere sympathy.

Adopted by the Board of Directors, December 12, 1919.

STANFORD L. HAYNES

By the death of Stanford L. Haynes the community has lost a zealous citizen, the City Library Association a staunch friend, and its Board of Directors a valued and esteemed associate. For twelve years Mr. Haynes has been a member of this Board, serving with the Committee on finance and in other important capacities. He has aided the work of the association not only by his interest and sound counsel, but also by liberal gifts to its building funds. The regard which Mr. Haynes won from all with whom he came in contact, makes very personal the sorrow with which the Directors record his death, and very deep the sympathy which they wish to express to the members of his family.

Adopted by the Board of Directors, May 22, 1920.

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1919
17 Apr 21

Report of the President

For the last twenty years the City Library Association has rendered to this community a service growing larger without interruption each succeeding year; but seldom in its history has the use made of this institution shown so great an increase as has occurred during the past twelve months. The number of books circulated, for example, has mounted to more than a million volumes. In the light of the recent census, it is interesting to note that the circulation of books, which in 1900 equaled $2\frac{6}{10}$ volumes per capita, and by 1910 had risen to $5\frac{9}{10}$ volumes per capita, in the year just completed amounted to $8\frac{3}{10}$ volumes per capita. Or stated differently, during the past twenty years, while the population has slightly more than doubled, the number of books available in the library and branches has substantially trebled, and the use of these books has multiplied more than six-fold. This is a remarkable growth, indicative of the place which the library fills in the community; few cities use their library to any such extent. It should be noted, also, that this service has been economically rendered. The entire maintenance cost of the library and branches in proportion to the circulation has increased only from the figure ten years ago of $8\frac{6}{10}$ c. per volume circulated, to $8\frac{9}{10}$ c. the past year. This result, which, of course, has been attained only by the fuller and hence more economical use of our plant, is the more gratifying in view of the broadening service rendered to artisans, business and professional men, children, club women, students, the blind, the foreign population—indeed, almost all classes in the community.

The museums, as well as the library, have drawn a larger attendance than in preceding years. Mr. Smith, as always, has made many notable additions to the exquisite collections in the George Walter Vincent Smith galleries. He has opened the Art Museum freely, without regard to the regular hours, for visitors from out of town, classes from the schools, the Art League, local conventions, various clubs, and, indeed, for any group of people who could not attend conveniently during the afternoon. The informal drawing classes for children on Saturdays proved so successful last year that they have been continued by a regular teacher assigned for the purpose by the School Committee, under the supervision of Mr. C. Edward Newell, Supervisor of drawing. The talks and stories for boys and girls on Saturday mornings, and the expert guidance furnished all children who wish to visit the museum are certainly giving to the rising generation a deeper artistic appreciation of the treasures displayed in its galleries.

The Museum of Natural History has not only noted a larger attendance, but has found that visitors spend more time, and that a larger

proportion of them come with a definite purpose. The use by study clubs and classes has increased, nearly seven thousand children have come for regular lessons or lectures, while clubs of boys and of girls for the study of natural history have been fostered, and work for the scientific societies of the city has been extended.

Death has removed from the Board of Directors two esteemed and valued members—Henry J. Beebe and Stanford L. Haynes. The Directors have expressed in appropriate resolutions, which will be printed with this report, their sense of the great loss thus sustained by this Association.

In January, Mr. Solomon B. Griffin was unanimously elected a member of the Board.

An unusually large number of valuable gifts have been received, which have already been acknowledged and are deeply appreciated. Friends of the late William R. Whitmore subscribed a fund to purchase a representative painting by this gifted artist, and chose "Sylvia at the Pool", which has been hung in the delivery room of the library. The late Mary L. Searle has bequeathed the sum of \$500 for the reference department of the library, and the late Mrs. J. Searle Hurlbut \$500 for the purchase of books for the dental library.

In view of rising costs of all kinds and consequently augmented maintenance charges, the library and the museums have attempted simply to carry on their customary activities, and so far as may be satisfy the rapidly increasing demands within the scope of their present work. It should not be forgotten, however, that there remain many ways in which the institution can be expanded with great practical benefit to the community. As its present work has been made possible in no small measure through the gifts of generous citizens, so in the future additional gifts and bequests, it is to be hoped, will enable it to enter still broader fields of useful endeavor.

NATHAN D. BILL, *President.*

Report of the Librarian

The growing demand made upon the library and branches is reflected in the number of books circulated, amounting to 1,078,152 volumes. This represents a gain of 137,969 volumes, which, except during the year when the Memorial Square branch was opened, is by far the largest increase ever experienced. It is undoubtedly an "after-war" result; for it occurred in spite of the fact that from motives of economy less could be done than usual to bring the resources of the institution to the knowledge of the people. The library's books, however, have been accessible at 435 distributing points throughout the city (including 388 school rooms), an increase of 30. Among the new deposits were such places as the summer camp for French girls, the Morgan Envelope Company, the Parker Street playground, the Russian club, and the Westinghouse Manufacturing Company. None has been more appreciated, perhaps, than a branch established upon request at the Springfield Hospital, which affords reading for convalescent patients. This collection was made from surplus books given to the library, and unlike other deposits the volumes are not exchanged, but are kept permanently at the hospital. Readers' cards have been taken out by 5,926 people, and the register of card-holders begun six years ago now contains 59,542 names. Just how many of these readers have moved from the city, or for other reasons have ceased to use the library, it is impossible to state until a new enrollment is made; but the number of active cards is certainly large.

There have been added by gift and purchase 19,817 volumes, making the total stock 272,647 volumes. Of these, 19,943 are in the Forest Park Branch, 6,545 (including 2,064 borrowed from the main library) are in the Indian Orchard Branch, and 23,755 are in the Memorial Square Branch, leaving 222,404 in the main library. Many books that are seldom consulted must, of course, be kept for purposes of reference; but otherwise, to save the expense of caring for dead material, it is the practice to weed out books as soon as their usefulness is past. As a consequence, the 272,647 volumes available represent an exceptionally live, rich, and effective working collection. It is a matter of regret that the net increase is somewhat smaller than in preceding years.

Branch Libraries

No other department comes in such intimate relation with the people as the branch library; and a conspicuous feature of the Springfield library system consists of the three important branches, two of which are perhaps as much used as any branch libraries in New England. At all three, the circulation has gained remarkably. From the Forest Park Branch 191,140 volumes were borrowed, from the Memorial

Square Branch 212,830 volumes, and from the Indian Orchard Branch 49,302 volumes, representing increases of 14%, 24% and 30% respectively. As illustrating the varying conditions to be met in different districts, it is noteworthy that at the Memorial Square and Indian Orchard branches slightly more than half the books drawn are juvenile; at the Forest Park Branch less than one-third are juvenile, and more than two-thirds are for adults; while at the main library, as would be expected, three-quarters of the books drawn are for adults. The Forest Park Branch works closely with the large grammar school nearby, and has started a useful file of current ephemeral material for teachers, and has kept them informed of books adapted to their special work, and has arranged to receive notice of their plans in advance so as to prepare the needed material. It has lent more than 55,000 pictures, largely for the use of the schools, but also for clubs, Sunday School workers, and others. The Indian Orchard Branch, being the most distant from the main library, has made a point of borrowing from it for short periods the more notable current books of special interest to individuals or groups in the branch's constituency. It has conducted occasional story hours for children, has given classes from the schools instruction in the use of the library, and as shown above has recorded the largest increase in circulation of any department. The librarian and members of the staff of the Memorial Square Branch have visited the school rooms in an endeavor to have every child acquire the library habit. Library clubs for boys and girls have been conducted on Saturday mornings when books and reading have been discussed, and lists of systematic reading for self-improvement have been supplied to numerous inquirers, both children and adults. At all the branches, interest has been aroused by timely exhibits, not infrequently lent by the people of the neighborhood; books on special topics have been displayed; and in a multitude of other ways the reading of good books has been stimulated.

Publications

The library has been able to print the past year only one new list—that entitled "Good English," noting books of practical help in correct writing and speaking. The continuing demand made it seem advisable to reprint the lists, "Out-door sports," "Mental science," "More nonsense and humor," and "Memories of childhood and youth," all of which have been very popular. Upon request the library compiled a list of books on building construction to be issued by the United States Bureau of Education as one of its after-war reading courses; and also prepared a catalogue for the Springfield Hospital branch, which was printed by the hospital so that copies could be placed in every room. The dearth of our own lists has been compensated for to some extent by an unusually large variety of attractive catalogues and pamphlets, obtained in quantity by gift from publishers and others, with such titles as "About poets and poetry," "The new poetry," "The best automobile and aviation books," "The best practical and mechanical books," "Books for the house and its garden," "Farm and garden books," etc.

From the American Library Association were procured for distribution valuable catalogues entitled "One thousand technical books" and "Five hundred business books." From the Atlantic Monthly there have been received reprints of the "Atlantic Bookshelf," in the selection of books for which, the City Library is one of the contributors. The printing and distribution of numerous small special lists has proved in the past an effective and comparatively inexpensive method of informing and interesting the public in the library's resources, and it is hoped that funds will in time permit the resumption of this work on a larger scale than has been possible the past year.

Americanization Work

Americanization work has been prosecuted vigorously in much the same way as has been described in previous reports. Branch librarians and assistants from the main library have visited the evening schools for foreigners, have attended their meetings and entertainments, and have occasionally spoken before their societies—of one of which a branch librarian has been made an honorary member. They have also talked with shop-keepers and others, who have gladly distributed printed leaflets telling of the library in the language common to the neighborhood. Naturalization classes and other groups have been welcomed at the library and branches; and more success has been achieved than heretofore in entering into relations with the foreign women. Excellent simple books are available in English telling of American institutions, and it is to be hoped that the American Library Association will be successful in its project of having more books printed giving this information in foreign tongues. There is ample opportunity for further work in this field; it has been said that no institution in a city reaches so many of the foreign population as an active public library.

Affiliated Societies

The Reading Circle for the Blind has completed happily its sixth season. A piano was given by Miss Ida E. Robbins, and a victrola by Mrs. Frederick Harris. Twenty-three speakers addressed the circle; many citizens kindly lent their automobiles; and Mrs. J. R. Lyman, Mrs. Samuel Bowles, Mrs. Abram Whitcomb, Miss Minnie M. Taylor, Mr. Robert O. Morris, and Mr. Elisha Gunn contributed a fund to supplement this transportation. Mr. Robert O. Morris gave victrola records, and Mr. Lambert Murphy a sum of money to buy others. Thus this activity has been supported by a very large number of generous citizens, and especial thanks are due Miss Clara M. Shurtleff who has shared throughout the season the responsibility for planning and making arrangements.

The meetings of the Poetry Society in the library hall have shown sustained interest, and the public has also been given opportunity to hear Richard LeGallienne lecture, and Vachel Lindsay read his poems. The library has been glad to render some active assistance in the work of the new Art League, though its meetings are held elsewhere and it is not so closely affiliated as the Poetry Society.

Art Room

In the Art Room there were fifteen exhibitions, including posters designed and executed by children of the public art schools of Paris, which were lent by Mr. C. Edward Newell; beautiful woodblock prints by Miss Helen Hyde obtained from the American Federation of Art; war memorials; examples of the work of professional photographers in Springfield; textile designs; rare Egyptian antiquities and Italian laces lent by Mr. Guido Gavasi; Japanese and Chinese fabrics from the Putnam-Graves collection; steel engravings and Chinese paintings given by Mrs. Harriet Kellogg Westcott; and a beautiful water color by George Inness lent by Miss Clara M. Shurtleff. The Aston collection of wood engravings now contains 1,914 proofs, of which 184 were added the past year. The number of pictures borrowed from the library and branches has increased from 79,998 a year ago to 111,214 the past season.

Miscellaneous

The children's room at the main library has noted a 40% gain in the Sunday attendance, and throughout the week a much larger demand for books—and books of good quality. Though adults are reading less about the war, children, especially boys, are reading more. The reading of the older standard books has been encouraged by posting lists with such headings as "Books Roosevelt read," "Lincoln's library," etc.

The library has kept in close touch with the Chamber of Commerce, and has furnished currently information for its monthly publication. A special effort has been made to build up the collection of books on the rubber industry, the section relating to exporting and to trade with the Near East has been amplified, and material has been supplied for the "better letters" movement.

Springfield is fortunate in having so extensive a sociological department as the David A. Wells Economic library, for there has been great interest the past year in industrial problems, particularly the relations of capital and labor, foreign trade, finance, reconstruction, the treaty, and other public questions.

Among the many special collections of books displayed in the different departments, none perhaps has been more helpful than that on thrift, which was continued throughout the winter and included among other subjects, books on cleaning, repairing, and remodelling garments.

Perhaps the most common obstacle to the use of a public library is indicated by the remark "I do not go to the library because I never can get the book I want." This refers not necessarily to the latest novel, but to whatever work of biography, travel, or history may be engrossing popular attention. To obviate this complaint so far as possible, just as soon as three or four readers ask to have a book reserved for their use, if the demand appears to be more than temporary, additional copies of the book are bought; and to give the casual reader also a chance of finding the books of the hour, one of these copies is not subject to "reserve," but is placed on the shelf. The number of books in

special request is not great, and it is found that a comparatively moderate expenditure for the above purpose yields a very large satisfaction to the users of the library.

The library profession, like others where increases in salary have not yet caught up with the cost of living, has been everywhere very seriously depleted. During most of the year, this library has been short-handed, and an unusual amount of sickness last winter and spring made conditions especially trying. Throughout, the members of the staff have given their efforts loyally and devotedly for the success of the work, and to them all, the most cordial acknowledgment is due.

Respectfully submitted,

HILLER C. WELLMAN,

Librarian.

Statistics of Accessions for 1919-1920

	Volumes	
Added by purchase, Central Library	10,522	
Added by purchase, Branches	7,619	
Added by gift	1,676	
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Total gain		19,817
Withdrawn		7,205
<hr/>		
Net gain		12,612
In the Library May, 1, 1919		260,035
In the Library May 1, 1920		272,647

Statistics of Circulation 1919-1920

	ADULT Volumes	JUVENILE Volumes	Volumes
Fiction	201,572	39,000	
Periodicals	8,822	2,517	
General Works	255	553	
Philosophy	4,235	151	
Religion	3,394	1,229	
Sociology	6,846	1,362	
Education	1,595	58	
Philology	1,735	97	
Natural Science	3,608	11,346	
Medicine	2,958	341	
Useful Arts	13,202	1,953	
Fine Arts	6,231	614	
Music	7,827	191	
Amusements	2,304	1,724	
Literature	14,377	7,652	
Foreign Literature	9,165	185	
History	7,672	6,415	
Biography	5,212	3,137	
Geography	4,956	7,416	
Myths		14,601	
Juvenile (jj)		29,090	
<hr/>			
Total circulation from Central Library	305,966	129,632	435,598
Indian Orchard Branch			49,302
Forest Park Branch			191,140
Memorial Square Branch			212,830
Hospital Branch			602
Estimated circulation at schools and other agencies			188,680
<hr/>			
Pictures circulated			1,078,152
			111,214

Report of the Art Museum

At the Art Museum for the past year a concerted effort has been made to broaden the educational service, that there may develop a more intelligent appreciation on the part of the public of the many advantages that can be gained through the museum collections.

Classes from the public and private schools have visited the museum in connection with their study of history, as well as in design and industrial art.

The museum has been opened outside of our regular hours for societies, schools, or clubs, and also at the request of the Springfield Chamber of Commerce for visiting conventions. At the recent Conference of the Rotary Clubs held in Springfield, about three hundred of the visitors attended the special opening of the museum.

The story hours for children instituted last year which proved of so much value have been continued at the museum lecture hall, and one was repeated at the Indian Orchard branch library. Art talks have also been given upon request to some of the church societies.

Many thanks are due to the School Board for their generous co-operation in furnishing a drawing teacher for the children who come to the museum Saturday afternoons to draw. This service commenced January 24th, and continued for twelve weeks under the supervision of Mr. C. Edward Newell, supervisor of drawing in the public schools, with very gratifying results. This coming year we are looking forward to the lessons commencing in October and continuing through the school year.

I wish also to express appreciation to Mr. John J. Mack of the Vocational School, for printing the passes which the museum is issuing to the children. These cards will admit to the museum any child over six years of age. Thus no child is denied the privilege of visiting the museum. This idea has worked out very nicely, as it gives the children a certain feeling of responsibility. They are encouraged to ask questions and a special endeavor is made to have them understand the exhibits.

I would like to call attention to the fact that the museum contains a fine library of reference books on art and anyone is at liberty to consult these volumes during the opening hours. Many important books on design are included in the collection.

All available time is given to the placing of explanatory cards with the exhibits, and we were recently much gratified to hear the art supervisor of Auburn, N. Y., say that she remembered the Springfield Art Museum as the cleanest museum she had ever visited and the first one in which the Oriental rugs had been classified and labeled.

The attendance has increased this year and I find that considered

per capita it is practically the same as at that Mecca of all travellers, the Metropolitan Museum of Art of New York City.

The additions made by Mr. Smith this year have been less in number than in any previous year. They include two interesting Korean chests, porcelains, embroideries, textiles and carvings in semi-precious stones.

Mr. Smith is gradually rounding out his collection of the so-called Hudson River School of American Art, and to this end a landscape by J. B. Bristol has been added to the gallery of paintings.

Mr. Smith's purchases for the past year have been seriously restricted for lack of room to exhibit, a very advantageous offer of a series of paintings by the late Elihu Vedder having to be declined on that account.

Respectfully submitted

ELEANOR A. WADE, *Curator.*

Report of the Museum of Natural History

The Museum of Natural History is gratified to report for the past year an increase over the previous year in general attendance, in attendance at meetings of classes and clubs, and at lectures given under the auspices of the museum. The total number of visitors for the year is 31,302; 6803 of these came for instruction through class or club work, lectures, story-telling or field excursions.

Girls' and Boys' Clubs

Girls' and boys' clubs have met regularly. The Daughters of Nature at the end of a season's work proved by tests their ability to identify correctly most of the minerals and rocks of this region. The Junior Museum club of boys has done as well, with an additional feature which was the conduct of meetings by members. A boy of fourteen years gave a talk worth hearing about his hobby, which is forestry. The study of moths and butterflies was directed by the president of the club. All of this work is entirely voluntary; and the spirit of the club is evident in the changed attitude of some of the museum's most problematic visitors.

Hobby Exhibits

For these and other children, opportunity has been given for display of their collections of woods, shells, minerals, and insects, and there has also been shown the recent work of our young artists.

Museum Games

Question papers and picture puzzles have proved popular. The former are sets of five questions to be answered on detachable slips. The following is an example:

From what mineral are leads for lead pencils made?

From what is plaster of Paris made?

From what is sugar obtained?

What fort once stood in Springfield?

Where did that fort stand?

Many labels and specimens must be scanned for answers to these questions which are, of course, suitably graded for children of different ages. During the inclement Saturdays of the past winter many young persons have been attracted to the bright, warm, museum where twenty to thirty children might be seen with question papers, while as many more were putting together dissected puzzles designed to teach facts about animals or plants; story-telling has interested other groups.

Prize Contests

Through the kindness of Mr. Robert O. Morris interest in bird study

has been stimulated by the offer of cash prizes for recognition of birds. One hundred and ninety-four children took the examinations for these prizes.

The Museum Going to the Schools

Specimens have been taken to the schools and used as subjects for talks by a member of the museum staff. The chipmunk, for example, has been used in seventy-eight lessons to approximately 2500 children who were told of the animal's structure, habits and economic status. Weasels and foxes were used in the same way to equal numbers. These visits resulted in an immediate increase in the number of classes brought to the museum by teachers.

Loan collections have increased in number and have been used extensively in the schools.

Lectures

Adults have had opportunities. The Finley and Fuertes lectures delighted hundreds of persons. Dr. George E. Dawson's series of lectures on psychology were particularly well attended. Round table talks by Mr. T. Nelson Dale on geological and botanical subjects have brought together some of Springfield's scientists, and through the Bird Club's activities nature lovers have met and gone afield with kindred spirits.

Gifts

Mr. Luman Andrews again heads the list of contributors with a donation of 2970 pressed plants which are now installed in the Andrews herbarium. Dr. J. M. Birnie has given relics of the late war, and from eighty-four other donors much appreciated and valuable additions have been made to various departments.

The Staff

Miss Dell G. Rogers who ably assisted at the museum for three and one-half years, resigned in September to be married.

Two Springfield teachers, Miss Dorothea Clark and Miss Grace Puffer, in part time work during the winter, have rendered valuable service in clubs and story-telling.

The Catherine L. Howard Library

As the work of the museum broadens the advantages of the Howard Library are increasingly apparent, and the museum welcomes this opportunity to express to the Catherine L. Howard Library association, appreciation of this excellent library, and of the unfailing assistance and encouragement given to the museum in its efforts to be of greater service.

The death of Miss Sophia Howard who was so essentially a part of the influence that inspired this memorial, brings sorrow to the many friends who loved and respected her.

The Psychological Laboratory

Dr. George E. Dawson reports on the Psychological Laboratory as follows:

There have been examined in the psychological laboratory during the past year something over 300 public school children; seventy-five clinical cases, and fifty vocational cases. The social agencies represented in the clinical cases included the Juvenile Court, The Massachusetts Society for the Prevention of Cruelty to Children, The Children's Aid Society, The State Board of Charities, The Hampden County Truant School, and others.

Among the school children examined there has been a larger number from the Junior High Schools and the three regular high schools than in any previous year, many of these applying on their own initiative to get help in deciding upon their future education. The number of applicants for examination as to vocational aptitudes has also steadily increased. The laboratory is achieving its purpose of becoming a general community agency.

Respectfully submitted,

GRACE P. JOHNSON, *Director.*

Treasurer's Report

FOR THE FISCAL YEAR ENDING APRIL 30, 1920

RECEIPTS

Balance brought forward from year 1918-1919.....	\$ 66.85
Appropriation from City of Springfield.....	90,200.00
Dog tax from City of Springfield.....	4,859.54
Alice W. Adams fund.....	45.00
Aston fund.....	50.00
Fanny Hazard Bond fund.....	200.00
John Bryant fund.....	225.00
Chester W. Chapin fund.....	500.00
O. H. Greenleaf fund.....	300.00
Augustus G. Hazard fund.....	250.00
J. Searle Hurlbut fund.....	25.00
Charles M. Kirkham fund.....	220.00
Charles S. Marsh fund.....	250.00
Charles Merriam fund.....	385.00
Sarah J. Moore fund.....	320.00
Caroline L. Rice fund.....	250.00
Grace Rumrill music fund.....	560.00
Joseph L. and Margaret H. Shipley fund.....	107.50
George W. Tapley fund.....	45.00
James M. Thompson fund.....	250.00
Dr. William Tully fund.....	25.00
David A. Wells fund.....	5,520.00
Net income, Edwards Street House.....	387.90
From Catherine L. Howard Library Association.....	164.56
Interest on bank balances.....	492.45
Fees for overdetection of books.....	6,267.73
Net receipts from duplicate collection.....	450.10
Non-resident cards.....	171.87
Miscellaneous receipts.....	394.73
Total receipts.....	\$112,983.23

EXPENDITURES

GENERAL EXPENSES

Engineers, janitors, and watchmen.....	\$ 4,555.34
Fuel.....	6,254.53
Insurance, repairs, and miscellany.....	2,186.66
Refund of money borrowed from S. D. Porter fund.....	1,000.00
	\$ 13,996.53

LIBRARY EXPENSES

Salaries, librarian and assistants.....	\$ 37,153.09
Pages.....	1,611.57
Sunday and holiday service.....	420.42
Cleaning.....	1,709.16
Books.....	7,558.53
Periodicals.....	1,384.88

CITY LIBRARY ASSOCIATION

Binding	\$ 3,360.95
Printing	840.93
Stationery and supplies	1,753.75
Repairs	1,409.69
Light and power	1,938.94
Postage	581.41
Express and freight	348.02
Telephone	239.41
Miscellany	443.64

\$ 60,754.39

FOREST PARK BRANCH

Salaries	\$ 7,024.06
Books, periodicals, and binding	3,784.04
Fuel, light, telephone, and miscellany	1,455.17

\$ 12,263.27

INDIAN ORCHARD BRANCH

Salaries	\$ 1,988.48
Books, periodicals and binding	938.93
Fuel, light, telephone, and miscellany	804.72

\$ 3,732.13

MEMORIAL SQUARE BRANCH

Salaries	\$ 6,883.27
Books, periodicals and binding	4,289.99
Fuel, light, telephone, and miscellany	1,666.70

\$ 12,839.96

ART MUSEUM

Salaries	\$ 4,202.97
Hall of Sculpture	388.25
Cleaning, repairs, light, and miscellany	1,799.17

\$ 6,390.39

MUSEUM OF NATURAL HISTORY

Salaries	\$ 1,437.40
Books for Catherine L. Howard Library	154.83
Cleaning, light, telephone, and miscellany	676.83
Repairs	340.47
Lectures	304.50

\$ 2,914.03

Total expenditures \$112,890.70

Balance 92.53

\$112,983.23

G. W. V. SMITH ART DIRECTOR'S ACCOUNT

Balance May 1, 1919	\$ 1,162.67
Interest on bank balances	21.95

Balance April 30, 1920 \$ 1,184.62

FUND FOR SCIENCE MUSEUM PUBLICATIONS

Balance May 1, 1919 \$ 210.99

Balance April 30, 1920 \$ 210.99

SHERMAN D. PORTER FUND

Balance May 1, 1919	\$ 1,165.00
Interest on \$1,000.00 Adams Express Co. 4% bonds	\$ 40.00

TREASURER'S REPORT

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Interest on \$2,000.00 Southern Pacific R. R. 5% bonds	\$	100.00	
Interest on \$3,000.00 Baltimore & Ohio 5% bonds		150.00	
Dividend on 14 shares Fisk Rubber Co., 7% 1st pref.		49.00	
Refunded		1,000.00	1,339.00
			\$ 2,504.00

Less:

Purchase of 14 shares Fisk Rubber Co., 7% 1st pref.			1,400.00
Balance April 30, 1920			\$ 1,104.00

DENTAL LIBRARY FUND

Balance May 1, 1919	\$	335.54	
Interest		13.34	
Balance April 30, 1920			\$ 348.88

CHARLES M. KIRKHAM FUND FOR BEAUTIFYING GROUNDS

Interest on one-half of \$6,000.00 Southern Pacific R. R. 4% bonds	\$	120.00	
Interest on one-half of \$5,000.00 American Tel. & Tel. Co. 4% bonds		100.00	
Interest on \$1,000.00 Baltimore & Ohio R. R. 5% bonds		50.00	\$ 270.00
Expenditures			\$ 270.00

INSURANCE PREMIUM RESERVE FUND

Balance May 1, 1919	\$	650.00	
Interest	\$	1.98	
Dividend on 6 shares Fisk Rubber Co. 7% 1st pref.		21.00	
Cash deposited		650.00	672.98
			\$ 1,322.98

Less:

Purchase of 6 shares Fisk Rubber Co. 7% 1st pref.	\$	590.83	
Balance April 30, 1920			\$ 732.15

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1920/21

ANNUAL REPORT
OF
THE CITY LIBRARY ASSOCIATION
of
SPRINGFIELD, MASSACHUSETTS

For the Year Ending April Thirtieth

1921

THE DEPARTMENT OF
APR 1 1921
UNIVERSITY OF MICHIGAN

CITY LIBRARY
ART MUSEUM
MUSEUM OF NATURAL HISTORY

Officers of the City Library Association, 1921-1922

PRESIDENT: NATHAN D. BILL
VICE-PRESIDENT: ROBERT O. MORRIS
TREASURER: HENRY H. BOWMAN
ASSISTANT TREASURER: HENRY M. MORGAN
CLERK: HILLER C. WELLMAN

Directors

BOWLES, HENRY L.	PACKARD, AZEL A.
CARROLL, JAMES B.	PRATT, GEORGE DWIGHT
CORCORAN, LUKE	SKINNER, HENRY H.
GILLETT, FREDERICK H.	SMITH, G. W. V.
GRIFFIN, SOLOMON B.	WALLACE, A. B.
KIRKHAM, JAMES W.	WESSON, WALTER H.

EDWIN F. LEONARD, *Mayor*.
ARCHER R. SIMPSON, *President of the Common Council*.
JAMES H. VAN SICKLE, *Superintendent of Schools*.

Auditors

W. C. SIMONS A. W. DAMON

Standing Committees

On Finance—Henry H. Skinner, Nathan D. Bill, James W. Kirkham, Henry L. Bowles.
On Art—G. W. V. Smith, A. B. Wallace, Walter H. Wesson, Azel A. Packard, Solomon B. Griffin.
On City Appropriations—Henry H. Skinner, Robert O. Morris, A. B. Wallace, George Dwight Pratt.
On Museum of Natural History—Robert O. Morris, Walter H. Wesson, Frederick H. Gillett.
On Library—Luke Corcoran, G. W. V. Smith, James B. Carroll, Henry H. Skinner, George Dwight Pratt.
On Insurance—Nathan D. Bill.

Librarian—Hiller C. Wellman.

Director of the Art Museum—George Walter Vincent Smith.

Director of the Museum of Natural History—Grace Pettis Johnson.

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1920/21

Report of the President

If the amount of service rendered to the community be a criterion, the past twelve months have been the most successful in the history of the City Library Association. Our citizens are every year gaining a truer appreciation of the priceless treasures in the George Walter Vincent Smith collections in the Art Museum, and are more and more making practical and systematic use of them. Not only is the attendance of visitors growing, but even more gratifying is the increasing study of the collections by individuals and by classes of adults and children. The docent service has been extended; weekly talks have been conducted for children in connection with the history classes in the schools; and lectures on the laces, enamels, period furniture, lacquers, textiles, jades, and other objects in the museum, have been given by Miss Wade. Mr. Smith, as for so many years past, has made numerous valuable additions, including choice paintings, rare guns, and a piece of jade beautifully carved and undercut.

Mrs. Johnson, the Curator of the Museum of Natural History, has been in communication with all the public school teachers so that the work for the children has been more direct and effective than ever before. Among the courses of scientific lectures was one of such a character that teachers and others who attended and fulfilled the requirements of study could secure academic credit. Though this plan is to be followed in museums elsewhere, it is believed to have been first adopted in Springfield. A work of great possibilities has been inaugurated in connection with the continuation school, by which salesgirls and other pupils are taught fundamental facts regarding the sources and processes of manufacture of such objects as silk, vegetable fibres, semi-precious stones, beads, glass, amber, and many other articles and materials which they handle.

The circulation of library books has been greater by more than 100,000 volumes than in any previous year. Bare statistics have little meaning, and few individuals who go to the library to draw a book realize the magnitude and detail of the work carried on there. It is of interest to note, for example, that during the past year more than four thousand children were given class instruction in the use of the library; that forty thousand books were deposited in the schools; that nearly twenty thousand people were notified when the books they wanted became available; that the new books purchased, including replacements of volumes worn out in circulation, would, if averaging an inch in thickness, make a pile five times as high as the municipal tower; that the volumes mended, labeled, prepared for the bindery, etc., in the repair department of the main library alone would similarly make a pile five times as high as

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div. of cont. No

Mt. Tom; and that the books charged and discharged in the circulating departments of the main library and the branches would, if placed end to end, form a continuous line stretching from Springfield to Montreal.

Owing to the greatly increased circulation, and to unexpected advances in the cost of books, in binding, and, above all, in fuel, it was foreseen early in the winter that it would be necessary either to restrict the service of the library or to incur a deficit in the maintenance accounts, the deficit being estimated at \$2,700. After consultation with the Mayor and Finance Committee, it was decided to be unwise to curtail the usefulness of the library, especially when large numbers of people out of employment were making practical use of books to improve their earning capacity. Owing to the very mild weather and consequent reduction of fuel consumed, the anticipated deficit was reduced to \$1,129. The work is conducted at an extremely low cost per book circulated, yet the very large volume of the work for a city of this size necessarily involves a considerable maintenance item. As a consequence, no effort has been made to extend the work in directions even where there is obvious need, as we hesitate to ask the city at this time for largely increased appropriations. For example, the Forest Park Branch is crowded and in urgent need of an addition. Branch libraries at Winchester Square and in some of the remoter parts of the city are much desired, Americanization work with foreigners has reached a stage where it would be greatly advanced by placing it in a separate room with special assistants; but these and numerous other extensions of work must apparently wait until the city is better able to provide for them, or until our means are increased by further endowments.

The pictures, books, art objects, etc., of the late Everett H. Barney have been placed in the custody of the Association by the trustees of his estate; and we have been especially glad to hang in Rice Hall an excellent portrait of Mr. Barney, who was so generous a benefactor of the city. A residuary bequest of \$2,500, the income of which is to be used for the purchase of books, has been received under the will of the late John L. King, president of the Association from 1860 to 1872, whose interest and activity in raising funds for the original building two generations ago earned him the title of "father of the city library". The vacancy in the Board of Directors caused by the death of Stanford L. Haynes, which was noted in the last report, was filled by the unanimous election of Henry L. Bowles.

As the years pass, a great institution like the City Library Association, with its Art Museum, its Museum of Natural History, its library and branches, gains a certain momentum which leads the public to make greater and greater drafts on its services. Its opportunities for practical usefulness are limited only by the funds available for its support.

NATHAN D. BILL, *President.*

Report of the Librarian

The most significant characteristic of a modern public library is the ever broadening field of its activities. The advent of the automobile, outdoor sports, and the "movies" have all been said to threaten the reading habit. Yet for a generation the number of books drawn from the City Library has increased at a very much faster rate than the population. The circulation has steadily mounted from a total of 164,091 volumes in 1900, equivalent to $2\frac{6}{10}$ volumes per capita, to a total of 1,189,991 volumes last year, equivalent to $9\frac{2}{10}$ volumes per capita. These rather remarkable figures would seem to indicate, if the circulation of library books is a guide, that people in Springfield, at least, are reading today between three and four times as many books as formerly. Not only the number of books, but the character of the books called for is worthy of note. While precise figures are not available, there is no doubt that there has been a great increase in the use of books as sources of information, and particularly of books on the industrial arts, trades, and business. In view of the manifold social problems pressing for attention, it is not surprising that sociology was the class showing the largest gain in circulation the past year, the increase amounting to 21%. A deposit of books on this subject established at the Union Relief rooms for the staff and volunteer workers has also been much used.

During the past seven years 66,559 persons were registered as card-holders. A portion of these cards are no longer valid owing to death, removals, etc., so that it finally became necessary to make a new register. This laborious undertaking was begun the first of May and will require at least six months for completion. The fact that an active library has enrolled as card-holders probably less than half the population shows how far the public library still falls short of filling its field.

The accessions to the main library and branches numbered 18,787 volumes, and 6,634 volumes were worn out or withdrawn as of no further service. The total number of books now in the library numbers 284,800.

Rice Hall.

Although the work in Rice Hall, where the reference collection is shelved, is second in importance to that of no other department, it has received scant attention in annual reports because its very diversity renders it difficult to summarize. Each inquiry differs, and many pages would be needed to describe adequately what goes on in this room. For example, an officer of one of the largest manufacturing companies wished to compile a list of books on economics and labor problems suitable for foremen; another manufacturer sought practical books on traffic management; another, exhaustive material on making up wage scales and comparative wage lists; another sent a long cable message

to be decoded; another wanted to learn all the localities where a certain kind of timber was to be found; another sought assistance in translating foreign correspondence. Details of different manufacturing processes are constantly sought. These are but samples. Manufacturers and business houses are continually calling on the department for all sorts of commercial information, while from individuals the questions are so various as to make any description impossible. There is scarcely a point in science, literature, education, or economics which is not liable to be the subject of inquiry at any moment, necessitating a broad collection of reference books and a staff of alert and intelligent reference librarians. Information too recent to have become embodied in books is furnished by a file of clippings, pamphlets, and other current or ephemeral material, which it is attempted to keep constantly up to date. During the period of unemployment a notable increase has been observed in the number of men and women using this department to make themselves more valuable employees, and very many have prepared here for civil service examinations.

The Art Department.

The art room is another department where a large amount of reference work is done, pertaining especially to the applied arts as well as the fine arts. Its rich collections are used by designers, advertisers, printers, interior decorators, furniture collectors, and others, as well as by artists, illustrators, and students of architecture and painting. In this room is housed the picture collection comprising probably a quarter of a million prints grouped according to subjects. Of these, 131,988 were borrowed from the main library and the branches, including 71,311 from the Forest Park Branch. Somewhat more than half were sought by teachers to illustrate history, geography, natural science, and industrial processes; and of the others about one-third related to the fine arts, and the remainder were travel and religious subjects or miscellaneous illustrations used for all sorts of purposes. Among the exhibitions held were a number of unusual note, including colored woodcuts by Miss Eliza D. Gardiner, water colors by W. Russell Flint, Japanese prints by Hiroshige, beautiful textiles lent by the Cheney Silk Company, very remarkable photographs taken in Japan by Mr. Henry Eichheim, and an interesting collection of playing cards of many nations lent by Mr. Fred A. Eldred. A series of exhibitions was also held to illustrate the subjects of study by various women's clubs; and through the courtesy of Miss Estelle L. Dunn a fine display from her splendid collection of war posters, representing enemy as well as allied countries, was held in the library hall, giving pleasure to many visitors.

The Branch Libraries.

The branch libraries have all enjoyed increased patronage. The circulation at Memorial Square amounted to 216,849 volumes, at Forest Park 217,135 volumes, and at Indian Orchard 58,855 volumes, representing gains of 2%, 14%, and 19%, respectively. The Forest Park library building is so crowded that it seems doubtful whether its activi-

ties can grow much further until the building is enlarged. At Indian Orchard there is need of community clubs or gathering places for boys and girls which would make far simpler the problem of maintaining in the reading rooms the quiet desired by adults. Nevertheless, there has been a gain of 22% in the patronage by adults. The Memorial Square branch is fortunate in having a large basement devoted to the juvenile department, which has made possible reading clubs for boys and for girls, story hours, and similar activities to encourage good reading. I wish it were possible to describe in detail the work of the branches—the intimate and helpful relations prevailing between the members of the staff and the various clubs and organizations as well as the individuals of the neighborhood; the talks at school and playground by the “library teacher”; the many opportunities for suggesting helpful reading and encouraging a wider outlook, in not a few cases the giving of wise practical advice, especially to the children; the visits when necessary to the homes of those who cannot reach the library—to arrange for books to beguile sleepless nights for a little girl suffering from heart disease, for an elderly woman confined to her fourth floor by rheumatism, for a crippled man who finds books useful both for his vocation and his pet hobby. In many such ways there is a direct personal relation, and a mutual appreciation and helpfulness that are very gratifying. To follow the various exhibits, the special collections of books, and the illustrated bulletin boards relating to current events and other subjects is in itself no small step towards a liberal education.

Publicity.

As in the past, the newspapers have been the chief reliance in spreading information about the resources of the library, and acknowledgment is due for their courtesy in publishing weekly notes of new books received and many news items. The printing by the library of special lists and catalogues which have proved so helpful in the past had to be much curtailed. After the monthly bulletin, the most important publication was a pamphlet entitled “The Pilgrim Tercentenary, the Puritans and the New England Spirit” listing, with readable annotations, books not simply relating to the history of the colonists, but showing their real genius and formative influence throughout the country. With the advent of woman suffrage, a list of books for the new voter proved popular. Brief lists of good vacation reading were also printed for the children in the different school grades. So many requests were received for the biographical list called “Memories of Childhood and Youth” that the folder was reprinted. A brief list was also prepared for the members of the new City Planning Board. Besides its own publications, the library has procured, by gift or at small cost, and has distributed, numerous other useful lists, including the “Quarterly List of New Technical and Industrial Books,” “The Atlantic Book Shelf,” “Farm and Garden Books,” “New Books about Russia,” “Business Books,” “What to Read on Social Hygiene” (by the American Social Hygiene Association), etc. The library also exhibited its work at the Mothers’ Conference under the auspices of the Springfield Federation of Women’s Clubs

at the Home Beautiful Exposition, and again at the Child Welfare Exposition participated in by twenty welfare organizations. A printed appeal calling attention to the increasing prices of books and binding, and asking assistance in the care of books, reduced binding costs for the last five months below the estimate. In this connection an exhibit at the Memorial Square Branch entitled "Casualties in the Book World," showing examples of careless injury, helped.

Affiliated Societies.

The Poetry Society has held open meetings throughout the year, and the public is indebted to it for the free opportunity of hearing five poets of wide reputation. At the last meeting of the year, which is devoted to the work of Springfield poets, the poem submitted anonymously by Mr. William B. McCourtie, who has done so much to foster the success of the Society, was chosen to be crowned—surely an example of "poetic justice." The Springfield Art League has likewise conducted open lectures at the library, and its annual exhibition, which was held in the library hall, proved highly successful. Under the League's auspices there was exhibited later a notable collection of Japanese woodcuts lent by Mr. Raymond A. Bidwell. The Reading Circle for the Blind has continued its useful work with the generous assistance of a large number of Springfield citizens.

Briefer Mention.

The work with foreigners has been continued effectively. We hope the fact that one foreigner, three days after landing, found his way to the library in search of books to help in learning English shows that this work is becoming firmly established. It would be very desirable if the books could be placed in a separate room, where meetings could be held, with assistants who could give more time to the special needs of foreigners, to receiving groups and classes, to visiting their societies, etc. The Springfield historical collection now contains 9,473 books, pamphlets, manuscripts, etc., relating to the city. Among the accessions were ten volumes of photographs constituting an exhaustive pictorial record of Springfield in the war, received through the courtesy of Mr. Charles H. Beckwith, Chairman of the Committee on Public Safety; a card index of high school graduates deposited by the High School Alumni Association; and a file of early directories presented by Mr. Henry D. Marsh completing the library set. The library is indebted to Mr. Harry Andrew Wright for calendaring the collection of early deeds, as well as for copies and facsimiles of manuscripts. Mr. Henry H. Bowman, learning that the library lacked funds to buy certain desirable but expensive publications, sent a check for \$106 to make possible their purchase. There have been numerous other generous gifts, including a total of 1,694 volumes, all of which have been gratefully received and duly acknowledged.

The Staff.

The work has been handicapped by numerous changes in the staff. Miss Marion B. Lewis, who was in charge of the Indian Orchard

Branch, resigned after fourteen years of earnest and faithful service. She was succeeded by Miss Beatrice I. Kelliher of the Somerville library. During the interim the branch was well cared for by Miss Margaret S. Coates of the reference department. Miss J. Ethel Wooster, a member of the staff since 1914, who for the last four years had conducted the work for children with diligence and judgment, resigned, and was succeeded by the first assistant, Miss Florence G. Henry. Other resignations included Miss Ruth F. Clark, Miss Ruth L. Clifford, Miss Alma R. Field, Miss Mary S. Field, Miss Bertha E. Joslyn, Miss Jannette E. Newhall, Miss Hope Packard, Miss Winnifred R. Smith, Miss Ethel F. Wood. All of them had served faithfully, and several of them for long periods. Sincere acknowledgment is due to all my associates in the staff. With every one of them—as with most library workers—library work is far more than a mere bread winning pursuit. They have entered it because of the peculiar appeal of its service; and to their interest, enthusiasm, and devotion is due in large measure whatever success the library attains.

Respectfully submitted,

HILLER C. WELLMAN,

Librarian.

Statistics of Accessions for 1920-1921

	Volumes	
Added by purchase, Central Library.....	9,641	
Added by purchase, Branches.....	7,452	
Added by gift.....	1,694	
Total gain.....		18,787
Withdrawn.....		6,634
Net gain.....		12,153
In the Library, May 1, 1920.....		272,647
In the Library, May 1, 1921.....		284,800

Statistics of Circulation 1920-1921

	ADULT Volumes	JUVENILE Volumes	
Fiction.....	232,801	44,102	
Periodicals.....	10,138	2,601	
General Works.....	301	683	
Philosophy.....	4,487	210	
Religion.....	3,432	1,232	
Sociology.....	8,288	2,129	
Education.....	1,640	40	
Philology.....	1,811	94	
Natural Science.....	3,804	12,094	
Medicine.....	3,095	212	
Useful Arts.....	12,992	2,131	
Fine Arts.....	6,654	652	
Music.....	7,690	269	
Amusements.....	2,705	1,602	
Literature.....	15,192	7,365	
Foreign Literature.....	9,517	81	
History.....	6,544	8,461	
Biography.....	5,923	3,001	
Geography.....	5,809	9,677	
Myths.....		15,200	
Juvenile (jj).....		34,628	
Total circulation from Central Library.....	342,823	146,464	489,287
Forest Park Branch.....			217,135
Indian Orchard Branch.....			58,855
Memorial Square Branch.....			216,849
Hospital Branch.....			1,061
Estimated circulation at schools and other agencies.....			206,804
Total circulation of books.....			1,189,991
Pictures circulated.....			131,988
Deposited in 393 school rooms:			Volumes
Supplied for one-half school year.....			29,227
Renewed for second half school year.....			10,887
			40,114

Report of the Art Museum

We have been much gratified by the increased attendance during the past year, as it shows conclusively that the Museum is gradually assuming its proper place in the community.

Much time and attention have been given to bringing before the public the vast resources of the Museum for study, as well as for æsthetic enjoyment. The story hours for children which have been given for the past two years by Miss Cordelia C. Sargent have been continued. This year she has made a special effort to supplement the course in history which has been given in the public schools. The first one on Dec. 4th being entitled Pomegranate Seeds, or How King Hades gained a Queen.

Dec. 11th. The Tale of Troy, the World's Greatest Story.

Dec. 18th. Legend of the Christmas Rose.

Jan. 8th. Wanderings of Ulysses.

Jan. 15th. Little People of Tanagra.

Jan. 22nd. Making of an Emperor, a Story of Rome.

Feb. 5th. City of Seven Hills.

Feb. 12th. Justinian and Theodora; or How a Roman Emperor Built a Christian Church.

Feb. 19th. Roland and Oliver. Knights of Deathless Fame.

Feb. 26th. King Arthur and His Knights of the Round Table.

Mar. 12th. Tale of a Great Crusade.

Mar. 19th. The Field of the Cloth of Gold.

Mar. 26th. The Wondrous Tale of a Venetian Traveler; and

Apr. 2nd. The Ship of Adventure; the Founding of a New Nation; a story of our own Pilgrims.

After these stories the children were brought to the Museum and shown particularly the things in connection with the country and times of which they had been hearing.

In addition, stories were told at the Barrows School to an audience of over four hundred; to the Olivet Community House; and at the Indian Orchard and Memorial Square branch libraries.

We wish to express our thanks to the Springfield School Board, who have generously furnished us a drawing teacher who has come to the Museum Saturday afternoons to give instruction to children who have evinced a special desire to draw. The results may be seen on the screens. These pupils average eleven or twelve years of age. Twenty-two enrolled for the class, but as this was more than could be accommodated we have several on a waiting list to be notified when there is a vacancy. One boy of twelve years has spent twenty-seven of his Saturday afternoons here, one of the girls twenty-five, while several have been twenty or more times, which indicates that the interest has been well sustained

up to the present time. We are looking forward to continuing the course another season.

Since we instituted the custom of giving passes to children, over three thousand have been given out. With these they may visit the Museum at any of the opening hours, and they are especially encouraged to ask questions.

On Sunday, June 13th, the museum was opened in all departments for the Convention of the New England Federation of Business and Professional Women's Clubs. February 17th, the Museum was opened in the forenoon, especially for the members of the Cosmopolitan Club. In addition to these we have received the art section of the Westfield Woman's Club, the Ellington Woman's Club, the art section of the Amherst Woman's Club, and the Forest Park Literary Club. Special classes in design have been received from the Central High School, the Technical High School, and the High School of Commerce. The schools have also used the collections to assist in their study of history and civics. Schools from Chicopee and Blandford have also visited us.

During April and May on Tuesday afternoons a series of informal talks has been given, taking up one subject at a time, the first one being upon Arms and Armor, then furniture, cloisonné enamels, Oriental rugs, lacquer, lace, jade, and textiles. These have been largely attended by the drawing teachers of the city, and upon request we plan to continue these talks in the fall.

A plan is now in motion to receive classes from the Continuation School following those which have been held in the Museum of Natural History, showing the various products such as silk, linen, etc., brought to their highest use in lace, brocades, embroideries, etc.

The ideal Art Museum of the present day is not only a store house for the wonderful works of man in the fine and so-called industrial arts, but its true mission is a vital and uplifting force to the community in which each individual has a personal interest. Art has a vast influence in the development of the higher life and the master works of the past and present should stimulate to greater endeavor.

A high authority says that "the greatest asset of a museum is its collections." When we compare the collections in this museum with the very best in the country we are bound to acknowledge our great debt to the artistic discrimination and generosity which has provided it as a free gift to each individual citizen.

Mr. Smith, not ever quite content, has added during the past year the following:

Four beautifully mounted guns.

Two artistic panels by Wedgwood.

A beautiful carved dish of jade and the following paintings by modern artists:

The Heathery Slope of the Hills; by Nora Bowkett, an English painter of Scotch highlands and heather.

Venice; by N. Briganti, a pupil of the Florence Academy, who has exhibited at Rome, Milan, and Florence.

Landscape; by Frederic Ede, a Canadian artist of repute.

Evening, Loch Fay; by William Watson, who has passed away since the purchase of this painting. The wonderful evening light with the long haired rugged Scotch cattle makes this a most notable painting.

Early Moonlight; by Robert Strong Woodward, who has received first prize in several American exhibitions, is another very unusual canvas.

Hospitality; by J. J. LaValley adds an example of the very best work in still life of this well-known Springfield artist.

Miss Clara Shurtleff has recently presented to Mr. Smith a water-color painting by the late George Inness. This has quite an interesting history having been originally presented by Mr. Inness to Mr. Smith, who later gave it to Miss Shurtleff's father, the late R. G. Shurtleff, and now Miss Shurtleff has graciously returned it to Mr. Smith.

There have also been added from Mr. Smith's house three oil paintings.

A Landscape, by Henry P. Smith.

The Fagot Gatherer, by T. L. Smith.

Landscape, by Raffaella Mainella.

If this museum can help to develop in our midst contemporary productions in the fine and applied arts Mr. Smith will feel amply repaid for all the toil and sacrifice he has endured, notwithstanding it has always been a labor of love.

Ralph Waldo Emerson has said, "Though we travel the world over to find the beautiful, we must carry it with us, or we find it not."

If we can help, ever so little, others to find this great source of pleasure we shall be satisfied.

Respectfully submitted,

ELEANOR A. WADE, *Curator.*

Report of the Museum of Natural History

At the beginning of this year the Museum of Natural History sent out the following questionnaire:

PRINCIPALS AND TEACHERS:

What can the Museum do to help you in your work?

Free lectures: Suggest subjects and time.

Story telling for children: What subjects will best supplement school work?

Excursions: When and to study what?

Loan collections: Name materials needed.

Any other suggestions will be appreciated.

The year's program has been based largely upon responses and suggestions received, and as a result the Museum has worked with teachers much more directly and effectively than in any previous year.

Lectures for University Credits.

There were requests for geography lectures, and that in connection with such instruction teachers might have opportunity to work for academic credits. The course was provided with two of the best speakers obtainable,—Dr. Wallace W. Atwood, President of Clark University, and Mrs. Helen Goss Thomas, a research associate with Dr. Atwood in geographic investigation. Our thanks are most cordially given to Dr. Atwood and Mrs. Thomas for generously contributing their services in lectures unsurpassed in the Museum's educational work. Meetings were well and enthusiastically attended. Not only have credits been awarded by the Junior College, but teachers report that material as presented in these lectures has proved exceptionally helpful and stimulating in their work.

Associated with these, Miss Fannie A. Stebbins gave lectures and conducted field excursions for study of local physiography. Opportunity to work for credits was given also in this very excellent series.

Dr. George E. Dawson's four lectures on the Psychology of Self Expression attracted the usual large audiences, and the big bird meeting of the year brought together one thousand persons interested to hear Norman McClintock.

Stories for Children.

The Pilgrim Tercentenary was kept in mind in planning the children's stories for the winter. With early settlers and settlements as a basis, children followed the Indian boy through the years before and after he shared this section of the valley with the white man.

In his wanderings, animal and plant life were considered as well as the customs of early New England inhabitants. The work was well

done by Miss Dorothea Clark who conceived the idea of such a course, and the group of 60 to 100 listeners who were on hand for the story every Saturday morning testified to the success of her efforts.

Classes from the Schools.

By definite program arrangement with the nature study supervisor, work with classes year by year assumes a more definite character.

During the fall and winter some animal (preferably living) is studied in the grades. It may be bird, cat, dog, mouse, rabbit or, if in a rural section, the farm animals. Classes are later brought to the museum to study the many relatives of such animals, and by means of habitat groups, knowledge of their home life is gained.

In February this work brought 1,300 children in classes with teachers for such exercises of observation, question and answer; these to be followed by written work in school. The total general attendance for that month was 5,420. The total attendance for the year was 36,296.

Work with the Girls' Continuation School is now in progress. Members of these classes include clerks who sell textiles, millinery, glass wares, buttons, jewelry, candy, groceries, etc.

A sample of one class exercise about textiles may best indicate the work with these girls. Silk was first displayed. Live silk worms indicated the source of pure silk, and the life history of these creatures was illustrated by specimens. Near-by silk making factories were named, and history of silk culture was told. In comparison, the much used fiber silk was shown in sweater, hosiery or scarf and the process of production from cellulose explained. Materials used for adulterating silk were referred to. Consideration of the worm or the woody fiber as the sources of garments worn or sold by members of the class proved impressive.

The story of linen from the dainty flax plant to the handkerchief or damask; cotton from the seed pod to Wesson oil or to our garments was enlightening, and colonial day methods of procuring and preparing the wedding chest of linen and woolens made a strong contrast to present day manufacture.

The sources of buttons were shown from the mussel shells to finished pearl buttons; from the palm tree fruit, vegetable ivory, to another kind of button manufactured in this city; and with these there were buttons of metal, bone, and wood. Jewelry day was unique. Beads of imitation amethyst, aquamarine, topaz, emerald, coral, ivory, cameo, bone and amber were shown with the mineral, animal or plant source that supply the genuine substances. Merchants are gladly lending material for these lessons that make for them more intelligent salesgirls, and both girls and merchants have asked that the work be continued and extended.

Sessions with the Boys' Continuation School consisted of exercises for non-English speaking members.

Clubs.

Clubs continue their activities in lectures and field excursions. Working with the Museum proves advantageous to both organizations. The

Garden Club has developed wonderfully and has provided excellent extension courses in landscape and vegetable gardening.

Evening Openings.

Evening openings have afforded Scout leaders opportunity to prepare for work with their troops, and there have been evening gatherings of the Business Women's Club, the Girls' City Club, and of our affiliated societies.

Bird Study Prizes.

Mr. Robert Morris has again made it possible to offer the children bird study prizes. Although the contest this year has additional features requiring more work, interest is keen and a great many boys and girls are enrolled for the examinations.

The Catharine Howard Library.

The Howard Library has acquired a cabinet for its growing collection of lantern slides. For this indispensable reference library with its equipment for illustration and children's hours, the Museum is indeed grateful to the Howard Library Association. It has helped in the purpose of the year, to make this, through service, the best in the institution's history. It is a pleasure to say that that purpose has been fulfilled.

Dr. Dawson reports on the work of the Psychological Laboratory as follows:

A total of 341 children, youth, and adults of Springfield, have been examined in the Psychological Laboratory during the current school year. Most of these are pupils in the public schools, but many other social agencies have been represented,—as Judge Heady's court, the Union Relief, the Massachusetts Society for the Prevention of Cruelty to Children, The Hampden County Children's Aid Society, The Good Will Home, etc. The most notable development of the work during the year has been in number of parents applying for examination of their own children, and especially in the number of young men and women making application through their school principals. Altogether, 103 have applied for help in deciding problems of further education, vocational guidance, etc., or 30% of the total number examined. Besides the local cases examined, a considerable number not included in the above, and representing various social service agencies, have come from neighboring towns all the way from Northampton to Thompsonville. Altogether, approximately 400 cases have been examined.

Respectfully submitted,

GRACE P. JOHNSON, *Director.*

Treasurer's Report

FOR THE FISCAL YEAR ENDING APRIL 30, 1921

RECEIPTS

Balance brought forward from year 1919-1920.....	\$ 92.53
Appropriation from City of Springfield.....	111,000.00
Dog tax from City of Springfield.....	4,971.00
Alice W. Adams fund.....	45.00
Aston fund.....	50.00
Fanny Hazard Bond fund.....	200.00
John Bryant fund.....	225.00
Chester W. Chapin fund.....	500.00
O. H. Greenleaf fund.....	300.00
Augustus G. Hazard fund.....	250.00
J. Searle and Julia S. Hurlbut fund.....	50.00
Charles M. Kirkham fund.....	220.00
Charles S. Marsh fund.....	250.00
Charles Merriam fund.....	385.00
Sarah J. Moore fund.....	320.00
Caroline L. Rice fund.....	250.00
Grace Rumrill music fund.....	560.00
Joseph L. and Margaret H. Shipley fund.....	107.50
George W. Tapley fund.....	45.00
James M. Thompson fund.....	250.00
Dr. William Tully fund.....	25.00
David A. Wells fund.....	5,495.00
Net income, Edwards Street House.....	286.49
From Catherine L. Howard Library Association.....	131.73
Interest on bank balances.....	530.71
Fees for overdetection of books.....	7,147.22
Net receipts from duplicate collection.....	673.31
Non-resident cards.....	191.95
Miscellaneous receipts.....	1,109.88
Deficit (overdraft).....	1,129.82
Total receipts.....	\$136,792.14

EXPENDITURES

GENERAL EXPENSES

Engineers, janitors, and watchmen.....	\$ 5,164.71
Fuel.....	7,891.19
Insurance, repairs, and miscellany.....	2,018.94
	<hr/>
	\$ 15,074.84

LIBRARY EXPENSES

Salaries.....	\$ 47,320.37
Pages.....	2,313.52
Sunday and holiday service.....	416.14
Cleaning.....	2,044.40
Books.....	7,867.69

CITY LIBRARY ASSOCIATION

Periodicals.....	\$ 1,028.59
Binding.....	4,134.74
Printing.....	1,243.12
Stationery and supplies.....	1,597.42
Repairs, furniture, and improvements.....	513.38
Light and power.....	2,085.71
Postage.....	561.40
Express and freight.....	344.94
Telephone.....	260.71
Miscellany.....	373.37
	<hr/>
	\$ 72,105.50

FOREST PARK BRANCH

Salaries.....	\$ 9,831.56
Books, periodicals, and binding.....	4,258.47
Fuel, light, telephone, and miscellany.....	1,488.41
	<hr/>
	\$ 15,578.44

INDIAN ORCHARD BRANCH

Salaries.....	\$ 2,796.42
Books, periodicals, and binding.....	1,159.21
Fuel, light, telephone, and miscellany.....	933.06
	<hr/>
	\$ 4,888.69

MEMORIAL SQUARE BRANCH

Salaries.....	\$ 9,747.42
Books, periodicals, and binding.....	5,636.25
Fuel, light, telephone, and miscellany.....	1,777.02
	<hr/>
	\$ 17,160.69

ART MUSEUM

Salaries.....	\$ 5,288.96
Hall of Sculpture.....	400.15
Cleaning, repairs, light, and miscellany.....	2,518.67
	<hr/>
	\$ 8,207.78

MUSEUM OF NATURAL HISTORY

Salaries.....	\$ 1,532.61
Books, slides, and cabinet for Catherine L. Howard Library.....	351.88
Cleaning, light, telephone, and miscellany.....	698.80
Repairs.....	953.89
Lectures.....	239.02
	<hr/>
	\$ 3,776.20
Total expenditures.....	\$136,792.14

G. W. V. SMITH ART DIRECTOR'S ACCOUNT

Balance May 1, 1920.....	\$ 1,184.62
Interest on bank balances.....	22.80
	<hr/>
Balance April 30, 1921.....	\$ 1,207.42

FUND FOR SCIENCE MUSEUM PUBLICATIONS

Balance May 1, 1920.....	\$ 210.99
Interest.....	11.90
	<hr/>
	\$ 222.89

TREASURER'S REPORT

19

Purchase \$250 U. S. Victory bonds.....	210.99
Balance April 30, 1921.....	\$ 11.90

SHERMAN D. PORTER FUND

Balance May 1, 1920.....		\$ 1,104.00
Interest on \$1,000 Adams Express Co. 4% bonds.....	\$ 40.00	
Interest on \$2,000 Southern Pacific R. R. 5% bonds.....	110.59	
Exchanged Feb. 1, 1921, for 20 shares Southern Pacific Co. stock		
Interest on \$3,000 Baltimore & Ohio R. R. 5% bonds....	150.00	
Interest on \$1,250 U. S. Victory 4¾% bonds.....	59.37	
Dividend on 14 shares Fisk Rubber Co., 7% 1st pref.....	98.00	457.96
		\$ 1,561.96
<i>Less:</i>		
Purchase \$1,200 U. S. Victory 4¾% bonds.....	\$1,261.96	
Purchase 20 shares Pacific Oil Co. stock.....	300.00	1,561.96

DENTAL LIBRARY FUND

Balance May 1, 1920.....		\$ 348.88
Interest on bank balance.....	\$ 6.96	
Interest on \$350 U. S. Victory 4¾% bonds.....	16.64	23.60
		\$ 372.48
<i>Less:</i>		
Purchase \$350 U. S. Victory 4¾% bonds.....		\$ 331.87
Balance April 30, 1921.....		\$ 40.61

CHARLES M. KIRKHAM FUND FOR BEAUTIFYING GROUNDS

Interest on one-half of \$6,000 Southern Pacific R. R. 4% bonds.....	\$ 120.00	
Interest on one-half of \$5,000 American Tel. & Tel. Co. 4% bonds.....	100.00	
Interest on \$1,000 Baltimore & Ohio R. R. 5% bonds....	50.00	\$ 270.00
Balance April 30, 1921.....		\$ 270.00

INSURANCE PREMIUM RESERVE FUND

Balance May 1, 1920.....		\$ 732.15
Interest on U. S. Victory 4¾% bonds.....	\$ 33.20	
Interest on bank balance.....	.38	
Dividends on 6 shares Fisk Rubber Co. 7% 1st pref.....	42.00	
Sale of 6 shares Fisk Rubber Co. 7% 1st pref.....	503.33	
Sale of \$700 U. S. Victory 4¾% bonds.....	695.00	1,273.91
		\$ 2,006.06
<i>Less:</i>		
Purchase \$700 U. S. Victory 4¾% bonds.....	\$ 699.19	
Expenditures.....	1,306.87	2,006.06



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ANNUAL REPORT
OF
THE CITY LIBRARY ASSOCIATION
of
SPRINGFIELD, MASSACHUSETTS

For the Year Ending April Thirtieth

1922

THE UNIVERSITY OF CHICAGO
4521
UNIVERSITY OF CHICAGO

CITY LIBRARY
ART MUSEUM
MUSEUM OF NATURAL HISTORY

Officers and Directors from 1864 to 1922

Presidents

KING, JOHN L.,	1864-1872	RUMRILL, JAMES A.,	1892-1901
HARRIS, DANIEL L.,	1873-1879	OLMSTED, JOHN,	1901-1904
BOND, EPHRAIM W.,	1880-1891	BILL, NATHAN D.,	1904-

Vice-Presidents

HARRIS, DANIEL L.,	1864-1873	RUMRILL, JAMES A.,	1884-1892
BOND, EPHRAIM W.,	1873-1880	OLMSTED, JOHN,	1892-1901
THOMPSON, JAMES M.,	1880-1884	BILL, NATHAN D.,	1901-1904
MORRIS, ROBERT O., 1904-			

Treasurers

SAFFORD, JAMES D.,	1864-1889	BOWMAN, HENRY H.,	1889-
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Clerks

RICE, WILLIAM,	1864-1897	DANA, JOHN COTTON,	1898-1902
WELLMAN, HILLER C., 1902-			

Directors

APPLETON, JULIUS H.,	1902-1904	KIRKHAM, JAMES,	1864-1893
BEEBE, HENRY J.,	1897-1919	KIRKHAM, JAMES W.,	1893-
BILL, NATHAN D.,	1887-	KNOWLTON, MARCUS P.,	1902-1918
BLISS, GEORGE,	1864-1873	LEE, HENRY S.,	1893-1902
BOND, EPHRAIM W.,	1864-1891	MERRIAM, CHARLES,	1864-1887
BOWLES, HENRY L.,	1920-	MERRIAM, GEORGE S.,	1896-1902
BOWLES, SAMUEL, 2d,	1866-1878	MERRICK, WILLIAM,	1883-1887
BOWLES, SAMUEL, 3d,	1878-1902	MORRIS, ROBERT O.,	1901—
CARROLL, JAMES B.,	1918-	OLMSTED, JOHN,	1889-1905
CHAPIN, CHARLES O.,	1872-1882	PACKARD, AZEL A.,	1909-
CHAPIN, CHESTER W.,	1864-1883	PRATT, GEO. DWIGHT,	1905-
CORCORAN, LUKE,	1896-	RUMRILL, JAMES A.,	1884-1909
DEANE, GEORGE H.,	1884-1890	SHURTLEFF, WM. S.,	1890-1896
GILBERT, ADOLPH W.,	1922-	SKINNER, HENRY H.,	1902-
GILLET, FRED'R'K H.,	1893-	SMITH, G. W. V.,	1892-
GREENLEAF, O. H.,	1873-1896	SMITH, HORACE,	1877-1893
GRIFFIN, SOLOMON B.,	1920-	SOUTHWORTH, C. H.,	1892-1897
HAILE, WILLIAM H.,	1892-1901	STEBBINS, JOHN B.,	1864-1899
HARRIS, AZARIAH B.,	1880-1891	THOMPSON, JAMES M.,	1864-1884
HARRIS, DANIEL L.,	1864-1879	TYLER, P. B.,	1864-1866
HAYNES, STANFORD L.,	1908-1920	WALKER, GEORGE,	1864-1877
HOLLAND, JOSIAH G.,	1864-1872	WALLACE, A. B.,	1904-
HOWARD, GEORGE E.,	1873-1889	WESSON, D. B.,	1888-1893
KING, JOHN L.,	1864-1872	WESSON, W. H.,	1899-1921

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Officers of the City Library Association, 1922-1923

PRESIDENT: NATHAN D. BILL
VICE-PRESIDENT: ROBERT O. MORRIS
TREASURER: HENRY H. BOWMAN
ASSISTANT TREASURER: HENRY M. MORGAN
CLERK: HILLER C. WELLMAN

Directors

BILL, NATHAN D.	KIRKHAM, JAMES W.
BOWLES, HENRY L.	MORRIS, ROBERT O.
CARROLL, JAMES B.	PACKARD, AZEL A.
CORCORAN, LUKE	PRATT, GEORGE DWIGHT
GILBERT, ADOLPH W.	SKINNER, HENRY H.
GILLETT, FREDERICK H.	SMITH, G. W. V.
GRIFFIN, SOLOMON B.	WALLACE, A. B.

EDWIN F. LEONARD, *Mayor*.
LEONARD S. STEBBINS, *President of the Common Council*.
JAMES H. VAN SICKLE, *Superintendent of Schools*.

Auditors

W. C. SIMONS A. W. DAMON

Standing Committees

- On Finance*—Henry H. Skinner, Nathan D. Bill, James W. Kirkham, Henry L. Bowles, Adolph W. Gilbert.
- On Art*—G. W. V. Smith, A. B. Wallace, Azel A. Packard, Solomon B. Griffin.
- On City Appropriations*—Henry H. Skinner, Robert O. Morris, A. B. Wallace, George Dwight Pratt.
- On Museum of Natural History*—Robert O. Morris, Frederick H. Gillett, Adolph W. Gilbert.
- On Library*—Luke Corcoran, G. W. V. Smith, James B. Carroll, Henry H. Skinner, George Dwight Pratt.
- On Insurance*—Nathan D. Bill.

Librarian—Hiller C. Wellman.
Director of the Art Museum—George Walter Vincent Smith.
Director of the Museum of Natural History—Grace Pettis Johnson.

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In Memoriam

Walter H. Wesson

In the death of Walter H. Wesson, the City Library Association has lost a valued friend and esteemed counsellor. Mr. Wesson contributed generously toward the erection of the Association's buildings, and for twenty-two years he served on the Board of Directors. His good judgment, graciousness, and tact won the warm regard of his fellow members, who in recording their sense of personal loss, desire also to extend sincere sympathy to the members of his family.

Adopted by the Board of Directors, January 13, 1922

Report of the President

The outstanding event of the past year is the decision to proceed at once with the erection of the new wing of the Art Museum. The structure when built was left incomplete, a pavilion at the north end being planned to balance that at the south. The Directors felt unanimously that they should not further delay the building of this addition, required by the design, long promised, and patiently awaited by Mr. George Walter Vincent Smith. Mr. Smith purposes filling the new galleries with the priceless treasures now stored in his house for lack of space in the present museum, which he has filled to overflowing. As no funds for building are available, the cost of the new wing, estimated at upwards of \$50,000, must be financed by borrowing, until such time as the Association may be able to pay for it by gifts or subscriptions or from its unrestricted income. The structure is to be finished within a few months, and it is particularly gratifying to feel that Springfield will soon have a completed building to house Mr. Smith's great benefactions—the treasures of a lifetime of successful and disinterested collecting. Meantime Mr. Smith, with the inborn zest of the true collector, is still continually making additions, numerous objects of art and fine oil paintings, as noted in the curator's report, having been purchased by him during the past year.

With the work of the Association steadily increasing, and not merely the amount, but the scope of its service to the community growing larger every year, it is not at all surprising that the institution is frequently subject to "growing pains." A large exhibition case recently installed in the Museum of Natural History fills its last available floor space. The museum needs not only more exhibition room, but halls and class rooms for its lectures and study courses. The facilities which it offers students of natural history not only appeal to large numbers of private groups and individuals, but have become an almost indispensable part of our public school system. The crowded condition of the Forest Park Branch Library has been commented on for a number of years, and the patronage is still increasing by leaps and bounds. The Directors recognize the urgent need of a substantial addition to this building whenever the residents of the district succeed in raising the necessary funds. A new branch library is desired by the people living near the junction of Carew and Liberty streets; and a branch in that region, which has no easy access to other parts of the library system, would without doubt prove of great worth, if the residents can find means of providing a suitable lot and building.

During this year there has been received a bequest of \$500 from the late William A. Birnie to be devoted to the Museum of Natural History, and a portion of the residuary bequest under the will of Elizabeth D.

Rice Bianciardi, the total of which will amount to about \$12,000, the income to be spent for books.

The loss sustained by this Association through the death, after a long illness, of Walter H. Wesson, who had been a Director for twenty-two years, was recorded by the Board in appropriate resolutions, which were published in the newspapers and will be printed with this report. The vacancy in the Board was filled by the unanimous election of Adolph W. Gilbert of Indian Orchard.

The service of the library, not only in educational and cultural directions, but in practical aid to business and industry, is growing every year in volume and importance. The community possesses in the library and branches and the Museums of Art and Natural History, an institution unique in character and of far-reaching influence. The city has been liberal in helping to maintain their activities. But under present economic conditions it is obvious that for the increase in the plant, and even for any very extensive increase in the scope of the service rendered, the Association will have to look to private benefactions. Judging by the many generous endowments it has already received, the exceptional use made of its facilities, and the widespread appreciation manifested, it will not have to look in vain. We feel confident that our citizens cherish this great educational institution, and will not fail to provide for its continuing growth and large future.

Before closing I must refer to the twenty years of most efficient, able and successful work of our librarian, Mr. Hiller C. Wellman. He has won the admiration and esteem of all of us, and I sincerely hope that he may be spared for many, many years of continued usefulness.

NATHAN D. BILL, *President.*

Report of the Librarian

For twenty-three consecutive years the patronage of the library and circulation of books have been larger each year than in the preceding year. Thus, the number of books lent during the twelve months past was greater by 78,525 volumes than ever before, and the total circulation for the year amounted to 1,268,516 volumes. It seems doubtful whether this rate of increase can be maintained indefinitely, at least without a corresponding increase in income, although the limit of the library's usefulness has by no means been reached. The most significant feature the past year, observed at all the branches as well as at the main library, is that the larger patronage came chiefly from adults rather than children. The classes of books showing the largest gain in use were music, biography, religion, fine arts, and education, in the order named.

On May 1, 1921 a new registration of card holders was begun. Since that date, 20,421 card holders have been reregistered, and 6,732 new cards issued, a total of 27,153. Owing to pressure of work, only a portion of the old cards could be reregistered as presented; and of the 46,000 old cards still outstanding, it is impossible to say how many are in active use—perhaps an estimate of a little more than one half would not be far wrong. If so, this would indicate that some 40% of the population are users of the library. Although this is a relatively large enrollment, it indicates now much wider a sphere the library may still hope to occupy.

There were added to the collection during the year 19,949 volumes, of which 1,106 were gifts. There were worn out or withdrawn 7,985, leaving a net gain of 11,964 volumes, which makes the total number now in the main library and branches 296,764 volumes.

The David A. Wells Economic Library.

The endowment bequeathed by the late David A. Wells has enabled the library to build up an excellent department comprising "economic, fiscal, and social science subjects." No attempt has been made to gather the source material useful only to the research worker, but an exceptionally comprehensive collection of books for the ordinary student or the general reader will be found. This section includes more than 20,000 volumes, some 600 having been added the past year. Among the accessions were Moody's Investors' Service and the Prentice Hall Business Information Service. Attention was called to these expensive publications in the library bulletin and by notices sent to the Chamber of Commerce with the result that they are much consulted.

Among the activities of the department was the preparation of a list of material on zoning, distributed to members of the City Planning Board and others concerned with the subject; a list of recent treatises on police systems and police work, which was furnished to members of the Police Committee; a list of books for bankers, mailed to the local banks with a

request that it be called to the attention of employees; and a list of recent educational publications which, together with a professional course of reading for teachers prepared by the state and distributed by the library, was doubtless the cause of the increase noted in the circulation of this class of books. In view of the interest in charter revision, the library's collection of municipal charters has been expanded and brought to date. The reports of the Harvard Economic Committee on the conditions of business and industry will be a valued accession whenever funds permit of their purchase.

Reference Work in Rice Hall.

The important work conducted by the reference department in Rice Hall is difficult to summarize. The requests and inquiries pouring in from day to day are of astonishing variety, such, for example, as the best personal memoirs written in the reign of Louis XIV; the width of a street and tree belt in Hadley; the names and addresses of all retail coal dealers in New England; an account of Langmuir's postulates, for a scientific student; the comparative advantages of welding or riveting the seams of boilers, for a manufacturer; the latest development in the flotation process of ore concentration, for an investor. Perhaps no feature of the work has shown more growth the past season than the gathering and reserving of reference collections of books for study purposes. Besides such customary service to the high school and junior college classes, books were set aside on special shelves for ten different university extension classes, several classes from Northeastern University, and half a dozen other groups or organizations. While the library cannot, of course, attempt to supply the necessary textbooks, it should provide the volumes required for reference and collateral reading; and it is gratifying to find that every group in the city organized for serious study seems to be turning naturally to the library and finding there reasonable facilities, although when two hundred members of one course desire the same book within a few days, it is not possible to satisfy their wants as promptly as is desired. Books have been reserved for between one and two thousand students, and the total number of volumes thus set aside was 2,416, some two and one half times as many as in any previous year.

Lectures, Meetings, and Exhibitions.

The number of exhibitions, lectures, and meetings of educational, literary, philanthropic, and civic associations in the library halls, all open freely to the public, has greatly increased, the use of the halls in winter being of almost daily occurrence. The Reading Circle of the Blind, the Art League, and the Poetry Society have continued their useful activities, the latter having enjoyed the most successful year in its history under the leadership of Mr. N. P. Ames Carter. Noteworthy exhibitions were held under the auspices of the Art League, including exquisite colored aquatints by Boutet de Monvel, the usual spring exhibition of paintings and handicraft by artists in the Connecticut valley, and a splendid representation of work by contemporary American painters shown in the fall. Many of the exhibitions arranged by the staff in the Art Room were planned with relation to the art studies in the high

schools or for various organizations. Among the exhibitions were plates of landscape architecture from the Massachusetts Agricultural College arranged for the Convention of Women's Clubs; delightful designs for back-yard gardens furnished by the Society of Little Gardens, for the Springfield Garden Club; pottery, metal work, etc., lent by the Technical High School; excellent posters from the New York School of Fine and Applied Arts, and later a fine collection of English posters obtained from the American Federation of Arts, both for the High School of Commerce; textile designs for the Technical High School; photogravures showing composition in landscape, for the Central High School; autographs, documents, and other relics relating to Napoleon lent by Mr. William C. Stone at the hundredth anniversary of the Emperor's death. Besides displays of material from the library's own collection, there was a highly creditable exhibition of original drawings by Springfield artists, and an exhibition of quaint, old-time valentines which proved unexpectedly attractive. Altogether, there is seldom a day when the visitor to the library will not find, besides the books, some lecture, meeting, display or exhibit worthy of his attention. In the report submitted by the head of the Art Department is a long list of projects that would be desirable to attempt whenever the staff and funds are available. The art section of a library is one of those which is perhaps most frequently supported by endowment. In Springfield, however, aside from the generous fund bequeathed by the late James A. Rumrill for the Grace Rumrill Department of music, and the fund of \$1,000. which has made possible the Aston collection of American wood engravings, no endowment has been received specifically devoted to the purchase of art books. The rich and extensive collection, which is constantly used by designers, advertisers, illustrators, and artists, as well as by students of the fine arts, has been built up entirely from the general funds.

Children's Department.

The work of the Children's Department has been conducted on much the same lines as heretofore. Four hundred class rooms in the schools have been supplied with collections of books to the number of more than 41,000 volumes. The summer reading clubs to encourage good reading by children were notably successful, a contributing factor being the buttons which the juvenile members who completed the course wore with especial pride. An important feature in the work of the department is the instruction given classes from the junior high schools, which come with their teachers to learn about the library and the methods of gaining access to its resources. This teaching is given at the main library and at all of the branches. In addition, this year about 150 girls from the Continuation School came for instruction in the use of reference books which would be helpful in their particular lines of work. These schools contain young people engaged in industry, but required to continue part-time schooling. Besides the general instruction given, sets of practice questions to be looked up were made out related to the special trades of each group; and the practical benefit was so apparent to the State supervisor of girls' continuation schools that it is reported similar library instruction is to be introduced in these schools throughout the Commonwealth.

Branch Libraries.

The branch libraries at Forest Park, Memorial Square, and Indian Orchard have all enjoyed increased patronage, more than half a million of the total number of books borrowed from the library system being taken through these branches. At Indian Orchard, where the growth in circulation has been especially rapid, the staff has been strengthened by the addition of a children's librarian. A floor covering of cork carpet has decreased the noise, and improved the order in the reading rooms. At the Forest Park Branch the delivery desk has been enlarged and some additional shelving provided, but the quarters are so crowded that further expansion seems impossible. Besides 237,464 volumes circulated, 77,611 pictures were lent to teachers, pupils, and general readers. In the region about the Memorial Square Branch the schools have been visited by the children's librarian, and many children enrolled who would not otherwise have used the library. There has been noted a special demand for books on electricity, accounting, mechanical drawing, shop management, journalism, and diet; while there, as elsewhere, it has been impossible to keep up with the sudden and enormous demand for books on "wireless." At both Forest Park and Memorial Square the hours have been extended by opening at 2 instead of 3 o'clock in the afternoon, and also on Saturday mornings.

Publications.

Owing to the cost of printing, the library has been unable to publish as many special lists and bulletins as heretofore, but fortunately the need is being met by the American Library Association and other organizations from which it is now possible to obtain admirable lists at moderate expense. Besides the lists noted above as distributed in connection with the work of the Wells Economic department, the library sent out through the Union Relief Association, the Visiting Nurses' Association, and the Day Nurseries, some excellent pamphlets obtained from Washington giving simple directions for the care of the baby, the cover bearing a notice of the many valuable books on the upbringing of children which can be obtained from the library. Other lists were entitled "Farm and garden books," "Home planning," "Boys' books," "Five hundred business books," a briefer list—"Business books for profit and pleasure," "Useful books for the home," "Plays of today," "Books and thrift," "Children's books for Christmas presents," "Hints on child training," etc. In addition the library has prepared special lists for the house organs of the Gilbert & Barker Company, the Milton Bradley Company, and various other manufacturing companies.

A Longer Survey.

In noting the activities of a single year, one hardly realizes the progress shown by a longer survey—a progress which has taken place not simply in this institution, but in public libraries throughout the country. Twenty years ago the City Library was housed in the old brick building covering no more ground than one of the present branches. The branches consisted of a small store open three days a week at Indian Orchard, and a basement room in a church open twice a week, at Forest

Park. The circulation of books at the latter place was a little over forty-six hundred volumes annually, where now it is more than a quarter of a million volumes. Besides the other active branches at Indian Orchard and Memorial Square, deposits of books are now available at 429 points throughout the city, some in factories, stores, institutions, rest rooms, fire engine houses, and similar places, but the great majority in school rooms. The total number of books in the library was, speaking in round numbers, 109,000 volumes. During the twenty years, 104,000 volumes have been worn out or withdrawn, and still the collection has grown to almost 300,000 volumes. The circulation of books, which in 1902 amounted to 255,000 volumes, has increased to more than a million and a quarter volumes. But these statistics of growth do not tell the whole story of the larger place which a library now fills in a community. For example, in the old building the children's department, if department it could be called, consisted of a small table and a bookcase in the corner of the delivery room. Now, not only the main library but each branch has special rooms devoted to the children, and a special staff of trained assistants to counsel and instruct them. Where formerly 4,000 books were taken by teachers for their classes, now more than 41,000 are borrowed. The library owned numerous valuable monographs and publications on the fine arts, which, however, were seldom consulted. Now the art department fills the large east room on the main floor of the library, with a staff of four attendants to meet innumerable demands of widely varying character. The picture collection, which now includes a quarter of a million prints, had just been started and 2,800 pictures were lent, while the past year the number of pictures lent was over 137,000. The variety of uses made of this collection is impossible to describe. It may be noted, however, that a large calendar illustrating the history of writing, lately issued by a New York concern, was prepared with material borrowed from this department. The extensive collection of music, which is one of the most used classes in the library, is also a new feature. The local history collection has likewise been organized and catalogued. In the older day, the library consisted chiefly of polite literature, works of fiction, history, biography, travel, poetry and the like. The utilitarian side received little attention. Thus, the provision of technical books, which are used so extensively by ambitious young workmen, is almost entirely a modern development; and so too, the books on all phases of business, commerce, industry, and manufactures, which form so important a contribution in the library's more practical service to the community, did not exist formerly. The provision of books in nearly a score of foreign languages, and the important work of Americanization, is still another innovation; much of the general educational activity and especially the work of a social nature carried on by the branches, which are the parts of the library closest to the people, is likewise new. When the extension of the functions of the library is thus viewed through the perspective of twenty years, it seems small wonder that its use in proportion to the population has trebled; and the continuous expansion points to still wider horizons in the future.

The late Judge Knowlton used to say of an alert public library, that no other institution in a city touches the lives of so many of its people.

Certainly no other institution is more representative of the whole community. It reflects, as well as broadens, the people's thoughts and interests, mirrors and elevates their ideals and ambitions, measures and sustains their occupations and avocations; and this not for one element, clique, or class, but for the whole mass of citizens—young and old, rich and poor, native and foreign. That the people of Springfield have been willing to build up and maintain this great institution, comprising besides the library and branches, the museums of art and of natural history, is surely significant of the character of the city.

I cannot close this report without an expression—however inadequate—of sincere acknowledgement. An indispensable factor in whatever progress has been accomplished has been the enthusiasm, initiative, and devotion that have animated all my associates in the staff. And the assistance, counsel, and sympathy—generous and unstinted—on the part of the Directors, and not least the President, have been an unfailing incentive and support.

Respectfully submitted,

HILLER C. WELLMAN, *Librarian.*

Statistics of Accessions for 1921-1922

	Volumes	Volumes
Added by purchase, Central Library	10,486	
Added by purchase, Branches	8,357	
Added by gift	1,106	
Total gain		19,949
Withdrawn		7,985
Net gain		11,964
In the Library, May 1, 1921		284,800
In the Library, May 1, 1922		296,764

Statistics of Circulation 1921-1922

CITY LIBRARY	ADULT Volumes	JUVENILE Volumes	Volumes
Fiction	266,031	41,474	
Periodicals	9,286	2,702	
General Works	481	654	
Philosophy	4,939	199	
Religion	4,285	1,235	
Sociology	8,300	1,974	
Education	1,959	25	
Philology	2,041	86	
Natural Science	3,956	12,802	
Medicine	3,469	211	
Useful Arts	14,427	2,655	
Fine Arts	8,029	576	
Music	11,317	237	
Amusements	3,182	1,708	
Literature	16,883	7,696	
Foreign Literature	10,779	92	
History	6,865	7,864	
Biography	7,539	3,056	
Geography	6,809	8,990	
Myths		14,936	
Juvenile (jj)		34,006	
Total circulation from City Library	390,577	143,178	
Forest Park Branch			533,755
Indian Orchard Branch			237,464
Memorial Square Branch			68,011
Hospital Branch			224,718
Estimated circulation at schools and other agencies			1,260
			203,308
Total circulation of books			1,268,516
Pictures circulated			137,758
Deposited in 400 school rooms:			
Supplied for one-half school year			28,428
Renewed for second half school year			12,863
			41,291

Donors of Books, Pamphlets, and Other Articles

	Volumes	Pamphlets	Miscellaneous
Affleck, George B.		2	
Allen, Leslie H.	3		
Bagg, Ernest Newton			Magazines
Baker, Mrs. Asa A.	2		
Baldwin, Alden	13		
Bartlett, Josephine M.	23		
Bates, Elizabeth			Magazines
Beckwith, Robert L.	3		
Bigelow, Walter			Magazines
Blunt, Col. Stanhope E.	1	1	
Boas, Ralph Philip	1	2	
Bodurtha, Mrs. Josephine C.	3		
Bowne, Jacob T.	6	4	
Britton, Mrs. Charles	1		
Broadhurst, Mrs. Edward T.			9 pictures
Campbell, Emma			66 Pictures
Carlson, Mary	9		
Carroll, Alfred J.		23	
Chapin, Mrs. Henry G.	50	57	
Chapman, Mrs. Clara R.		12	
Chapman, Mary	10		
Childs, Fannie R.		1	
Christian Science Church	1		
Colton, Henry Day	2		
Cook, Robert L.			Photographs
Crook, Douglas	24		
Damon, A. Willard	1		
DeBerry, William N.		6	
Denman, Mrs. Mark A.			46 Pictures
Dunn, Dr. Frederick P.			Magazines
Eaton, Richard P.	1		
Eberhardt, Oscar A.			2 Pictures
Edes, Dr. Robert T.	1		
Ehni, Dr. Robert F.		1	
Ellis, Ralph W., Jr.	1		
Ellison, Agnes S.			33 Pieces of Music
Finch, Mrs. Addie W.			15 Pictures and a Case of Birds
Frew, Leslie R.	3		
Gardner, George C.			338 Magazine Illustrations
Green, S. M.	2	5	
Hans, Mrs. Isabella	5		
Hart, Fred J.			Mineral Collection and Case
Hendry, Charles	1		
Hewitt, Dr. Clarence E.			Medical Magazines
Johnson, Anna M.		1	1000 Pictures and 3 Valentines
Johnson, Charles W.	1		
King, Clinton	1		
Kirkham, Guy			Magazines
Kravitz, Jacob	2		
Lamb, Lucy			10 Pictures
MacDuffie, Dr. John		5	
McIntire, Rose E.	10		
Marsh, Henry D.	1		
Medlicott, Mary			1 Block Print
Merkel, Otto J.	1		6 Leaflets
Merriam, G. & C. Co.	2		
Merriam, Mrs. G. Frank	11		Magazines
Merrill, Mrs. Nellie	1		
Morison, Avis M.		2	
Myrick, Christine			261 Post cards
			51 Architectural plates
			9 Pictures
Myrick, Herbert	58	19	
Myrick, Mrs. Herbert	2		
Nicolau, Vasili			25 Pictures
Parker, Dr. W. Thornton		2	6 Leaflets
Pierce, Benjamin D.		7	
Powell, Mrs. Benjamin	15		
Pratt, George Dwight			Bronze plaquette
Priest, Mary M.			10 Post cards
Putnam, Anna M.			1 Valentine
Riley, Francis, J.	15		
Roberts, Reuben		1	
Roland, Mrs. A. L.	2		
Russell, Peter	1		
Sargent, Cordelia C.			1 Block Print
Severance, Mrs. John N.			Record Books and Pamphlets
Seymour, Dr. Bina	1		
Shurtleff, Clara M.	6		2 Leaflets

DONORS

15

	Volumes	Pamphlets	Miscellaneous
Sinsabaugh, Etta	1		
Skinner, Henry H.		11	
Sourian, Zareh	1		6 Maps
Southworth, Mrs. Ada D.	37		
Surprise, M. V. B. Estate	9		
Theosophical Society	1		
Thrall, Nellie E.	25	6	
Vismont, Anthony	8		
Wesson Maternity Hospital			Magazines
White, Mildred		1	
Wilcox, Mrs. Mary R.	1		
Williams, Mrs. Minnie M.			5 Sampler Designs
Wright, Caroline	1		
Y. M. C. A. Northeastern University	5		

Report of the Art Museum

The most important event of the past year to the Art Museum is the decision of the Directors to add to the building an extension, to the end that the art treasures of Mr. Smith which have been kept at his home may eventually be placed in the museum and thus be available to the public at all times. This is a source of much satisfaction to Mr. Smith as he has always desired that his collections should be kept together in the city of his choice.

The Library and Art Museum are working side by side in service for humanity and those who live and strive in a humdrum world. The service rendered by the museum is of course not so broad as that given by the library but there is a certain inspiring education in art and an uplift which comes from contemplation of objects of beauty, and it has been truthfully said that "while the knowledge of art is rare, the love of art is common."

One way to foster the knowledge and love of art is in the work with children, and during the past year 486 of them have attended the Story Hour course given by Miss Sargent in the Museum Hall Saturday afternoons. This course was planned to supplement the history course of the 6th grade pupils. The following subjects will give an idea of the ground covered.

- Jan. 7. In the Land of the Minotaur.
- Jan. 14. The Tale of Troy, the World's Greatest Story.
- Jan. 21. Odysseus in the Land of Enchantment.
- Jan. 28. A Boy of Galatia.
- Feb. 4. The Winning of a Title, a Story of Rome.
- Feb. 11. The City of the Seven Hills.
- Feb. 18. The Sign of the Cross.
- Feb. 25. King Arthur: The Marvel of the Sword; Excalibur; The Founding of the Round Table.
- Mar. 4. Roland and Oliver, Knights of Deathless Fame.
- Mar. 11. Magna Charta and the Wicked King.
- Mar. 18. Little Brother of the Poor, St. Francis of Assisi.
- Mar. 25. The King Who Was a Saint; a Story of the Crusades.
- Apr. 1. The Mistletoe Queen, a Green Parrot, and a Church.
- Apr. 8. The Ship of Adventure; The Founding of a New Nation.

This year the children were requested to write an article describing the special objects in the museum relating to the talk. For those who should write twelve papers, a prize was offered for the best. Edward Fox of the Homer Street School was awarded the first prize and Chester Smith of the same school the second. The prize consists of a reproduction in plaster of a French ivory carving of the 14th century representing a tournament with knights in armor.

Classes in design from the MacDuffie and high schools of the city have taken advantage of the museum in their work, and at the last exhibition of the work of the pupils it was evident that many of their best designs had been adapted from those found at the museum.

Classes in history and civics have also been received and guided through the museum. Talks have been given to classes of adults on the lacquers, jades, cloisonné enamels, textiles and lace.

The Continuation School and some of the lace buyers of the city came to the museum for a talk on lace. At that time it was realized that it would be of great advantage if we could also show in connection with the beautiful antique hand-made laces, examples of the wonderful machine-made lace of the present day, and the firm of Forbes and Wallace, of which one of our directors is the senior member, has very generously provided us with many fine examples of the present day laces. These have been mounted and will be lent to schools, clubs, etc.

We have received Art Clubs, classes from schools, and delegations of Scouts from many of the surrounding towns.

At the museum on the 14th day of last June an informal reception was held giving the citizens and many friends of Mr. Smith an opportunity to congratulate him on his 89th birthday.

Oct. 26. All departments were opened for the members and friends of the Direct Mail Advertising Association, which was in convention in Springfield at that time.

Dec. 14. A lecture was given to the Mother's Club at Christ Church on "The Madonna of St. Luke."

Dec. 15. The Springfield Women's Civic Club was received at the museum and its advantages were explained.

Feb. 21. At Christ Church the Girls' Friendly Society was given a talk on "French Cathedrals and the Legend of the Gargoyle."

Mar. 14. A talk on the museum was given at the Hotel Kimball to the Hampden County Federation of Women's Clubs.

Apr. 7. A lecture on the "Gothic and Early Renaissance periods of Painting in Italy" was given in Museum Hall to the Forest Park Progressive Club.

Apr. 9. The museum was opened in the evening for the Springfield Art League, when an informal talk was given on Japanese Swords.

Apr. 24. The museum and the advantages it offers to the community was explained to the Springfield Delphian Society at their rooms on State Street.

The Saturday afternoon drawing class has been continued under the instruction of a teacher furnished by the School Board with gratifying attendance and progress.

Mr. Smith's purchases during the past year include a beautifully carved jade dish from China, a cloisonné enamel jar from Japan, a white embroidered rug from Kashmir, a Chinese gold and black lacquered sewing table with carved ivory fittings, and the following oil paintings: Shrove-tide, by Walter Blackman.

Early Spring by E. E. Case.

Twenty Thousand Majority by George H. Story.

The Grand Canal, at Venice by N. Briganti.

Two Landscapes, by Robert W. VanBoskerck.

Through the Hills in May, and Under the Winter Moon, by Robert Strong Woodward.

Landscape, by H. P. Smith.

The First Snow, by the Russian artist Prof. I. Shishkin.

A copy of Rembrandt's Saskia painted by Thomas Waterman Wood; and Elisha raising the Son of the Shunamite, by Benjamin West, who is called "the father of American art" and the "greatest historical painter of the 18th century."

A well known writer has said "The function of the modern art museum is that of inspiration to artist and public. Success is achieved in this direction when the silent message of the work of art is such that the fund of inspiration is inexhaustible."

Springfield is indeed fortunate in having for a citizen one who has taken great pleasure in providing this gift to its people.

Respectfully submitted,

ELEANOR A. WADE, *Curator.*

Report of the Museum of Natural History

Outstanding features at the Museum of Natural History for the past year are a successful lecture season, a nearer approach to perfect co-ordination of museum and school work, noteworthy additions by gifts to all departments, and a deepening conviction of the needs of an active institution that has wholly outgrown its equipment.

For the second year the Museum's program for extension work has been a response to requests from teachers, or to some special or current interest, as follows:—

Lectures and Credit Courses.

On Saturday mornings through the winter two classes of sixty adults have met in the Museum's basement to study mineralogy with the aid of specimens and apparatus. This work, conducted admirably by Miss Fannie A. Stebbins, attracted principals of some of our largest schools, a member of the faculty of our local college and teachers from adjoining towns as well as this city, all desiring to refresh memories of a subject or acquire new knowledge to be presented to classes. Field work followed these lessons.

Dr. William B. Kirkham's course of eight lectures on the History of the Human Body appealed to gratifying audiences including teachers, physicians, students and many persons who found the subject especially timely in connection with the renewed interest in evolution. In this excellent course, lectures were particularly well presented and received.

In these two courses it was possible for teachers to work for academic credits, and points were given by the Junior College to 34 members who took final examinations.

Working for credits has stimulated interest in opportunities offered by the Museum, and has resulted in establishing a closer contact of Museum and the teaching force. That she may work for credits and still get new ideas about her subject, the teacher makes more suggestions than formerly. The assembling of such suggestions results in programs that have been asked for by a considerable number of persons. In making a choice from topics the Museum endeavors to select what is also of current public interest.

Dr. George E. Dawson for the 7th season lectured under the auspices of the Museum. His discussion of the subject Manual Work and the Human Brain, in three lectures, was closely followed by large audiences of men and women who are always eager to listen to Springfield's eminent psychologist.

Dr. A. A. Allen, well known ornithologist and member of the faculty of Cornell University, in a motion picture lecture of unusual merit, delighted several hundred bird lovers.

Work with the Schools.

Teacher's Meetings announced through the office of the Superintendent of Schools have been called at the Museum by Supervisors approximately each month of the school year. At these meetings Nature work to be done at the Museum was outlined. 1263 pupils in classes with teachers have received instruction at the Museum in accordance with such outlines, and approximately as many more without teachers have voluntarily come with questions about lessons assigned.

Continuation School. Reference has been made to the possibilities for museum service to the Continuation Schools. These possibilities have become more apparent through experiences of the year. During a twenty days, period 656 pupils received instruction relating to business practice, to which natural history collections lend themselves remarkably. The program for the coming year as already outlined indicates the value of the Museum's illustrative material. Brief talks on what the Museum stands for opens the program, next are fundamental lessons on what constitutes the three kingdoms of minerals, plants and animals. Then in order these as the source of materials handled in connection with the work of the pupils are considered. A lesson may be Minerals to Kitchen Utensils, Plants to Cereals or Animals to Silk. Under the subject Minerals to Kitchen Utensils there are shown, and processes of manufacture explained, aluminum ware with aluminium and clays; enamel ware and its constituent minerals—iron, feldspar, borax, silica or sand; and the powdered granite which added to the enamel mixture produces so called granite ware. Of course the native state of the mineral is always emphasized. Glass-making minerals are shown with glass ware, the zinc-producing ores are displayed in connection with galvanized iron pails, rubbish cans, etc., and of course various iron ores and coppers are examined with iron and copper utensils.

A geography lesson comes in by tracing on maps the country or section from which these minerals are obtained, and local or other industries are always connected up with a subject where there is such a possibility. Merchants are gladly lending finished products for these lessons and sessions are occasionally attended by heads of departments. These are but outlines of ways in which the Museum can reach our youthful business people. It is a more intelligent clerk who goes back to her kitchen-ware counter after such a lesson, and the Museum has no more interested or responsive pupils than those who come for their continuation school work.

Work with Younger Children.

While carrying on this work for adults and older boys and girls there has been running alongside the children's program of story telling, educational games, prize contests and examinations. More and more children are coming to look upon the Museum as their place to spend Saturdays and much after-school time. This opportunity to get hold of many who know not home training is by no means neglected and it is the rare boy who does not respond to a sharing of his interest in snakes, toads, the many forms of life he finds in the swimming hole or his gems from the sand bank.

To supplement the school nature study work, stories for the winter and spring were about insects. The life histories of three groups—Ants Bees and Wasps—were woven into Saturday morning talks that attracted an average of 50 youngsters weekly. Miss Lois Hirst did the work and did it well. It would be an untold advantage to have such a worker with the children regularly.

Work with Scouts.

Scout work has required more attention than in previous years. Scout captains have served to demonstrate ways in which the Museum can be used in connection with Scout work. Outlined exercises preparatory to examinations for merit badges have led to study of native birds, mammals and plants by as many as 43 Scouts in a single day.

Special Exhibits have supplemented these and other activities and are useful for keeping a museum alive and attracting fresh sections of the public. Following Dr. Kirkham's course on the history of the human body an evolution exhibit was installed to show by charts, models and casts the latest scientific beliefs regarding the origin and evolution of man.

Miss Harriet Harris's Collection of about 200 dolls indicates the dress of people of many countries.

Gifts.

A very recent gift is from Mrs. Waterman S. C. Russell of three full Icelandic costumes with interesting accessories. To the same department Bishop Thomas F. Davies has given an important collection of 550 ornaments and implements of the stone age from this and other countries.

Dr. William B. Kirkham's gift of models, casts and specimens makes the evolution exhibit permanent.

To the department of geology Mr. John D. Colton has added much fine material.

Mr. Walter S. Barr has donated a collection of 109 Australian bird skins, and the beginning of a collection of models to illustrate local reptilian forms is the gift of Mr. Robert O. Morris.

To the botanical department Mr. A. B. Copeland has given 246 herbarium specimens.

Luman Andrews.

This is the first report in many years that has not a record of gifts from Luman Andrews. Mr. Andrews' death occurred in August, 1921 and removed one of the Museum's most valued friends and donors. Mr. Andrews was a well known member of the New England Botanical Society and an important contributor to botanical records published by the Connecticut Geological and Natural History Survey. He became interested in the Springfield Museum, and in 1898 made his first gift to its collections. This consisted of fossils, minerals and Indian relics, approximately 1000 specimens.

Interested in science generally, botany was his particular subject; and subsequent donations to the Museum resulted in the present splendid Luman Andrews Herbarium of about 15,000 specimens. Mr. Andrews was an extensive collector, exact as to data and identification, and his material was beautifully mounted.

A number of years ago Mr. Andrews conceived the idea of making a collection to represent the flora of Springfield. This plan he carried out and in brief visits to the city worked indefatigably until he had collected within its limits over 1000 specimens which now are a part of the Andrews Herbarium. This and his other gifts have added much to the Museum's importance as a scientific institution.

Bird Study Prizes.

The gift of \$25 from Mr. Robert O. Morris to be distributed to children for correct recognition of birds is attracting competitors for the third season. From the experience of past years it is estimated that more than 100 boys and girls will take examination scheduled for the coming week. These contests are teaching children to know and to appreciate birds.

Tree Labelling.

Another gift of funds from Mr. Morris has made possible the labelling of uncommon or rare trees about the city. Several species already bear the neat metal signs with white letters on a black background giving common and scientific names. Mr. Morris has recently added \$100 to his former gift to carry on this interesting work which has already met with much favorable comment.

Societies.

The Museum has had the privilege of aiding in the year's work of our active Bird Club and Garden Club, and they in turn have most cordially assisted in the Museum's program. By special exhibits and loans other clubs have been reached.

The Catharine Howard Library.

All of the work reported reacts on our libraries by creating need of more information for repeating lessons to classes or for examinations. Through purchases by the Howard Library Association the museum is each year supplied with splendid additions of scientific books, and a growing collection of lantern slides is always available for lectures, lessons or stories. The constant aid, interest, and appreciation accorded by the Howard Library Association has done much to stimulate and insure the success of the Museum.

The Psychological Laboratory.

Dr. George E. Dawson reports that during the current school year, up to May 25th, there have been examined 360 pupils in the public schools. Of these, 273 were children presenting problems of scholarship, discipline, or mal-adjustment to their work; while 83 came to the laboratory for educational or vocational guidance. Of the latter, 43 came from the Junior High schools; 41, from the Senior High schools; and 3, from the Americanization classes. The educational and vocational cases represented applications by the pupils themselves or their parents. This division of the laboratory work is steadily growing both in the number and the intelligent interest of those applying for examination.

Respectfully submitted,

GRACE PETTIS JOHNSON, *Director.*

Treasurer's Report

FOR THE FISCAL YEAR ENDING APRIL 30, 1922

RECEIPTS

Balance brought forward from year 1920-1921 (Deficit)	\$1,129.82	
Appropriation from City of Springfield	132,000.00	
Dog tax from City of Springfield	5,737.00	
Alice W. Adams fund	45.00	
Aston fund	50.00	
Fanny Hazard Bond fund	200.00	
John Byrant fund	225.00	
Chester W. Chapin fund	500.00	
O. H. Greenleaf fund	300.00	
Augustus G. Hazard fund	250.00	
J. Searle and Julia S. Hurlbut fund	50.00	
The King fund	81.25	
Charles M. Kirkham fund	220.00	
Charles S. Marsh fund	250.00	
Charles Merriam fund	385.00	
Sarah J. Moore fund	320.00	
Caroline L. Rice fund	250.00	
Grace Rumrill music fund	560.00	
Joseph L. and Margaret H. Shipley fund	107.50	
George W. Tapley fund	45.00	
James M. Thompson fund	250.00	
Dr. William Tully fund	52.50	
David A. Wells fund	5,495.00	
Net income, Edwards Street house	453.88	
From Catharine L. Howard Library Association	317.28	
Interest on bank balances	931.97	
Fees for overdeteration of books	7,552.24	
Net receipts from duplicate collection	505.47	
Non-resident cards	198.25	
Miscellaneous receipts	512.55	
Total receipts		\$156,715.07

EXPENDITURES

GENERAL EXPENSES

Engineers, janitors, and watchman	\$5,561.93	
Fuel	7,350.00	
Insurance, repairs, care of grounds, and miscellany	2,962.19	
Refund of money borrowed from Porter fund	1,000.00	
		\$16,874.12

LIBRARY EXPENSES

Salaries	\$53,220.76	
Pages	2,658.04	
Sunday and holiday service	446.29	
Cleaning	2,533.07	
Books	9,665.70	

CITY LIBRARY ASSOCIATION

Periodicals.....	\$ 1,369.81
Binding.....	4,850.35
Printing.....	1,210.25
Stationery and supplies.....	1,722.67
Repairs.....	1,043.19
Furniture and improvements.....	1,318.51
Light and power.....	2,242.80
Postage.....	625.65
Express and freight.....	413.30
Telephone.....	278.92
Miscellany.....	618.85

\$84,218.16

FOREST PARK BRANCH

Salaries.....	\$12,416.00
Books, periodicals, and binding.....	5,586.50
Fuel, light, telephone, and miscellany.....	1,766.11

\$19,768.61

INDIAN ORCHARD BRANCH

Salaries.....	\$3,694.65
Books, periodicals, and binding.....	1,561.53
Repairs.....	462.76
Fuel, light, telephone, and miscellany.....	1,134.52

\$6,853.46

MEMORIAL SQUARE BRANCH

Salaries.....	\$10,530.36
Books, periodicals, and binding.....	4,522.25
Repairs.....	426.71
Fuel, light, telephone, and miscellany.....	1,824.57

\$17,303.89

ART MUSEUM

Salaries.....	\$5,429.89
Hall of Sculpture.....	466.05
Cleaning, repairs, light, and miscellany.....	2,491.19

\$8,387.13

MUSEUM OF NATURAL HISTORY

Salaries.....	\$2,221.70
Books and slides for Catharine L. Howard Library.....	138.57
Light, telephone and miscellany.....	326.45
Furniture.....	251.50
Lectures.....	241.95

\$3,180.17

Total expenditures.....	\$156,585.54
Balance.....	129.53

\$156,715.07

G. W. V. SMITH ART DIRECTOR'S ACCOUNT

Balance May 1, 1921.....	\$ 1,207.42
Interest on bank balances.....	35.34

Balance April 30, 1922.....	\$ 1,242.76
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TREASURER'S REPORT

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FUND FOR SCIENCE MUSEUM PUBLICATIONS

Balance May 1, 1921.....		\$11.90
Interest on bank balance.....	\$.90	
Interest on \$250 U. S. Victory 4¾% bonds.....	11.93	12.83
Balance April 30, 1922.....		\$ 24.73

SHERMAN D. PORTER FUND

Interest on \$1,000 Adams Express Co. 4% bonds.....	\$ 40.00	
Dividend on 20 shares Southern Pacific Co. stock.....	150.00	
Interest on \$3,000 Baltimore & Ohio R. R. 5% bonds...	150.00	
Interest on \$1,250 U. S. Victory 4¾% bonds.....	59.33	
Dividend on 20 shares Pacific Oil Co. stock.....	60.00	
Interest on bank balance.....	2.41	
Refunded.....	1,000.00	
From sales of books and materials.....	456.82	
Balance April 30, 1922.....		\$1,918.56

DENTAL LIBRARY FUND

Balance May 1, 1921.....		\$ 40.61
Interest on bank balance.....	\$ 2.66	
Interest on \$350 U. S. Victory 4¾% bonds.....	16.68	19.34
Balance April 30, 1922.....		\$ 59.95

CHARLES M. KIRKHAM FUND FOR BEAUTIFYING GROUNDS

Balance May 1, 1921.....		\$ 270.00
Interest on one-half of \$6,000 Southern Pacific Co. 4% bonds.....	\$ 120.00	
Interest on one-half of \$5,000 American Tel. & Tel. Co. 4% Bonds.....	100.00	
Interest on \$1,000 Baltimore & Ohio R. R. 5% bonds....	50.00	
Interest on bank balance.....	2.96	272.96
Balance April 30, 1922.....		\$ 542.96

INSURANCE PREMIUM RESERVE FUND

Interest on \$700 U. S. Victory 4¾% bonds.....		33.20
Balance April 30, 1922.....		\$ 33.20

KING FUND

Balance May 1, 1921.....		\$2,500.00
<i>Less:</i>		
Purchase of \$2,500 Northern Pacific—Great Northern Joint 6½% bonds.....		2,392.19
Balance April 30, 1922.....		\$107.81



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ANNUAL REPORT
OF
THE CITY LIBRARY ASSOCIATION
of
SPRINGFIELD, MASSACHUSETTS

For the Year Ending April Thirtieth

1923

CITY LIBRARY
ART MUSEUM
MUSEUM OF NATURAL HISTORY

Officers and Directors from 1864 to 1923

Presidents

KING, JOHN L.,	1864-1872	RUMRILL, JAMES A.,	1892-1901
HARRIS, DANIEL L.,	1873-1879	OLMSTED, JOHN,	1901-1904
BOND, EPHRAIM W.,	1880-1891	BILL, NATHAN D.,	1904-

Vice-Presidents

HARRIS, DANIEL L.,	1864-1873	RUMRILL, JAMES A.,	1884-1892
BOND, EPHRAIM W.,	1873-1880	OLMSTED, JOHN,	1892-1901
THOMPSON, JAMES M.,	1880-1884	BILL, NATHAN D.,	1901-1904
MORRIS, ROBERT O., 1904-			

Treasurers

SAFFORD, JAMES D.,	1864-1889	BOWMAN, HENRY H.,	1889-
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Clerks

RICE, WILLIAM,	1864-1897	DANA, JOHN COTTON,	1898-1902
WELLMAN, HILLER C., 1902-			

Directors

APPLETON, JULIUS H.,	1902-1904	KING, JOHN L.,	1864-1872
BEEBE, HENRY J.,	1897-1919	KIRKHAM, JAMES,	1864-1893
BILL, NATHAN D.,	1887-	KIRKHAM, JAMES W.,	1893-
BLISS, GEORGE,	1864-1873	KNOWLTON, MARCUS P.,	1902-1918
BOND, EPHRAIM W.,	1864-1891	LEE, HENRY S.,	1893-1902
BOWLES, HENRY L.,	1920-	MERRIAM, CHARLES,	1864-1887
BOWLES, SAMUEL, 2d,	1866-1878	MERRIAM, GEORGE S.,	1896-1902
BOWLES, SAMUEL, 3d,	1878-1902	MERRICK, WILLIAM,	1883-1887
BRAND, JOHN W. B.,	1923-	MORRIS, ROBERT O.,	1901-
CARROLL, JAMES B.,	1918-	OLMSTED, JOHN,	1889-1905
CHAPIN, CHARLES O.,	1872-1882	PACKARD, AZEL A.,	1909-1923
CHAPIN, CHESTER W.,	1864-1883	PRATT, GEO. DWIGHT,	1905-
CORCORAN, LUKE,	1896-	ROBINSON, JOHN C.,	1923-
DEANE, GEORGE H.,	1884-1890	RUMRILL, JAMES A.,	1884-1909
ELLIS, RALPH W.,	1923-	SHURTLEFF, WM. S.,	1890-1896
GILBERT, ADOLPH W.,	1922-	SKINNER, HENRY H.,	1902-1923
GILLETT, FRED'R'K H.,	1893-	SMITH, G. W. V.,	1892-1923
GREENLEAF, O. H.,	1873-1896	SMITH, HORACE,	1877-1893
GRIFFIN, SOLOMON B.,	1920-	SOUTHWORTH, C. H.,	1892-1897
HAILE, WILLIAM H.,	1892-1901	STEBBINS, JOHN B.,	1864-1899
HARRIS, AZARIAH B.,	1880-1891	THOMPSON, JAMES M.,	1864-1884
HARRIS, DANIEL L.,	1864-1879	TYLER, P. B.,	1864-1866
HAYNES, STANFORD L.,	1908-1920	WALKER, GEORGE,	1864-1877
HOLLAND, JOSIAH G.,	1864-1872	WALLACE, A. B.,	1904-
HOWARD, GEORGE E.,	1873-1889	WESSON, D. B.,	1888-1893

WESSON, W. H., 1899-1921

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Officers of the City Library Association, 1923-1924

PRESIDENT: NATHAN D. BILL
VICE-PRESIDENT: ROBERT O. MORRIS
TREASURER: HENRY H. BOWMAN
ASSISTANT TREASURER: HENRY M. MORGAN
CLERK: HILLER C. WELLMAN

Directors

BILL, NATHAN D.	GILLETT, FREDERICK H.
BOWLES, HENRY L.	GRIFFIN, SOLOMON B.
BRAND, JOHN W. B.	KIRKHAM, JAMES W.
CARROLL, JAMES B.	MORRIS, ROBERT O.
CORCORAN, LUKE	PRATT, GEORGE DWIGHT
ELLIS, RALPH W.	ROBINSON, JOHN C.
GILBERT, ADOLPH W.	WALLACE, A. B.

EDWIN F. LEONARD, *Mayor*.
LEONARD S. STEBBINS, *President of the Common Council*.
JAMES H. VAN SICKLE, *Superintendent of Schools*.

Honorary Director

MRS. GEORGE WALTER VINCENT SMITH

Auditors

W. C. SIMONS A. W. DAMON

Standing Committees

On Finance—Nathan D. Bill, John W. B. Brand, Ralph W. Ellis, James W. Kirkham.
On Art—Solomon B. Griffin, A. B. Wallace, John C. Robinson.
On City Appropriations—Solomon B. Griffin, James B. Carroll, George Dwight Pratt, Henry L. Bowles, Ralph W. Ellis.
On Museum of Natural History—Robert O. Morris, Frederick H. Gillett, Adolph W. Gilbert, John W. B. Brand.
On Library—Luke Corcoran, James B. Carroll, George Dwight Pratt, Robert O. Morris.
On Insurance—Nathan D. Bill.

Librarian—Hiller C. Wellman.

Curator of the Art Museum—Eleanor A. Wade.

Director of the Museum of Natural History—Grace Pettis Johnson.

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In Memoriam

George Walter Vincent Smith

It was the happy lot of our late associate, George Walter Vincent Smith, to make for himself a fortunate life, and to be given the satisfaction of knowing that the ample fruits of his labors were to remain for the enrichment of this community. Over years far beyond the scriptural span of life, Mr. Smith was permitted the joy that lay in his unselfish quest after objects of high artistic merit. It was a service rich in results for education and craftsmanship in the present and the future. How surpassing was his spiritual and cultural achievement is revealed by the treasures in the Art Museum, as is the thoughtfulness of his generosity by the fund provided for their care. Fitly placed under his direction, these fine possessions are to be studied and enjoyed to the profit of our people, whose gratitude, it is pleasant to remember, was often expressed during the life of the giver.

Impressive in its suggestiveness to the men and women who seek enduring ways of serving their fellows, was our friend's exceptional accomplishment. The City Library Association of Springfield has been fortunate in its appeal to wisely generous benefactors, and never more so than in this conspicuous instance. The members of the Board of Directors pledge themselves and their successors to constant and sympathetic nurture of this noble gift, by which Mr. and Mrs. Smith are to benefit the public to an extent beyond reckoning.

Adopted by the Board of Directors, April 17, 1923.

Henry H. Skinner

Henry H. Skinner placed at the service of the City Library Association his informed and wise financial intelligence. He recognized every responsibility brought by membership in this body, both in the giving of money and of himself. Constant in his attendance at our meetings, he was fruitful in suggestions that helped advance sound conclusions. His quick and resolute mind and winning personality were revealed at their best in his long and helpful work for the development of an institution that steadily grows more important to Springfield. In this expression of lasting respect, so amply earned, we touch only one phase of a life, too soon ended, that gave Mr. Skinner high place in the regard of the community whose best interests he fostered.

Adopted by the Board of Directors, May 19, 1923.

Azel A. Packard

Into his relations with the City Library Association Azel A. Packard carried the same faithful and friendly thought that made him so highly regarded as an employer. The qualities that marked him in business life won for him the esteem of his associates in this body. No one was more scrupulously attentive to his duties as a director, even after ill health came to hamper his activities. In this continuing interest was reflected Mr. Packard's abiding sense of public duty.

Adopted by the Board of Directors, May 19, 1923.

Report of the President

We believe that the City Library Association has a large future. But a very erroneous idea prevails in some quarters regarding its present resources. Not a few citizens seem to think that its work is maintained largely or entirely from endowments. This is far from being the case. Its income from endowments defrays only about one-fifteenth of its running expenses, and for maintenance it is dependent chiefly on the appropriation made annually by the city. It is true that few libraries have received so many bequests, there being at present no less than twenty-six endowment funds. This large *number* of endowments is very gratifying, for it indicates widespread and generous appreciation of the value of the Association's work; but as regards the *amount* of endowment, various libraries in New England and elsewhere far surpass that of Springfield. Contrast, for example, our income from endowments, amounting to \$11,516 last year, with that of the Providence Public Library, which reported receipts from invested funds of more than \$145,000.

Yet Springfield is unique among cities of its size in possessing an institution like the City Library Association, combining so splendid an art museum, so serviceable a science museum, and a library so large and extensively used. All the land, the library building, the three branches, the museum buildings, and the museum collections (to say nothing of most of the library's valuable books) have come from private gifts. For this great plant, so liberally provided by private benefactions, the city has never been asked to contribute a dollar of tax money; and from it the community receives rich returns in service. The city maintains it generously, and doubtless it will continue cheerfully to defray needed running expenses. But under existing financial conditions and the heavy burden of taxation, the Directors are unwilling to ask for largely increased appropriations to make possible substantial extensions of the Association's work. There is ample field for additional service of great and practical utility, and bequests already made but still to be received will help, but it is obvious that large extensions of the work must await—and it is to be hoped they will invite—largely increased endowments.

During the past year the Association has received several important gifts and bequests. The late Charles A. Emery bequeathed to it one third of his residuary estate, which it is expected will add five or six hundred dollars to the annual income from invested funds. The late Henry H. Skinner left a bequest of \$25,000, the income to be used for the children's department of the library. The late Mary A. Booth, besides giving her geological and archaeological collections, bequeathed

with minor exceptions her entire property, the income from \$10,000 to be used for the purchase of scientific books, and the income from the remainder to go towards the maintenance of the Museum of Natural History. The magnificent bequest of the late George Walter Vincent Smith is known to you all. The income from his estate will ultimately go to the support of the Art Museum and the George Walter Vincent Smith collections, which are the result of his life's work.

In the course of time the annual cost of both the Art Museum and the Museum of Natural History will without doubt be cared for entirely by private endowments, leaving for the city only the maintenance of the library and branches. It is greatly to be hoped, also, that gifts or bequests will provide for a much needed enlargement of the sorely overcrowded Museum of Natural History building.

In other ways the Association has benefited from generous friends. Many books and other objects were presented, which have already been gratefully acknowledged. Three fine portraits by Charles Loring Elliott, given by Dr. Albert R. Rice shortly before his death, have been hung in the rotunda on the second floor of the library. The late Azel A. Packard provided in his will that a valuable painting by Shurtleff, showing a view of the Connecticut River, shall ultimately come to the Association.

Last summer the Directors learned that the house and lot at 29 Edwards Street was for sale, and a little later that the house and lot at 37 Edwards Street was also in the market. These properties adjoin our land on the rear, and are situated on either side of the lot at 33 Edwards Street, which the Association already owns. With a view to future needs, it seemed altogether desirable that the Association should control this land. As a consequence money was borrowed to buy these properties at a cost of \$22,000 and \$14,000 respectively, and they will be rented until needed for the Association's purposes. This purchase extends our property through to Edwards Street on a frontage of about two hundred feet.

It is profoundly gratifying to know that Mr. Smith saw the new wing of the Art Museum, which he had so long desired, and for the utilization of which he had so carefully planned, substantially completed before his death. The cost of this building, as stated last year, we were obliged to finance by borrowing, and this, together with the purchase of the real estate on Edwards Street mentioned above, leaves the Association with a debt of about \$100,000.

It is good news that the residents at Forest Park under the leadership of Mr. Henry R. Johnson, Col. B. A. Franklin, and others are raising funds for a substantial addition to the branch library building. The remarkable patronage and resultant overcrowding of the branch make such an addition greatly needed. The Directors are interested and wish the movement success.

And now I come to the overshadowing thought that has been in the minds of all of us throughout this meeting. Within the space of a few short weeks, death has removed from the Board of Directors three of its members—George Walter Vincent Smith, Henry H. Skin-

ner, and Azel A. Packard. It is impossible for me to attempt here to express our sense of loss or to commemorate their services. Appropriate memorials have been adopted and published by the Board and will be printed with this report. The vacancies were filled by the election of John W. B. Brand, Ralph W. Ellis, and John C. Robinson.

In the reports of the librarian and curators, which follow, will be found accounts of the year's work, although in the space allotted it is impossible more than to hint at the manifold and varied activities carried on by the Association. The suggestions and requests made for desirable enlargement of its service are always welcomed by the Directors, who desire to respond as far and as fully as available funds make it possible to do so.

NATHAN D. BILL, *President.*

Report of the Librarian

The last annual report pointed out that the circulation of books could hardly continue indefinitely to increase so much more rapidly than the population. As if in answer to this prophecy, for the first time in a long period the circulation has failed to show an increase. Yet the number of books lent amounted to 1,177,794 volumes—a very large figure for a city the size of Springfield. If the decrease, which it is already evident is only temporary, was due to the reduction of unemployment, the result is by no means to be regretted; and that this was the cause is borne out by the experience of many libraries elsewhere; and further, by the fact that while the circulation here fell off 7%, the amount received from fines increased 7%, clearly indicating that the public had less leisure for reading. A corresponding decrease in the circulation of juvenile books is attributable in part to the same cause, but more largely, perhaps, to the absorption of boys and girls in their “radio” outfits. At the main library the circulation of fiction dropped more than that of other books, while music and books relating to educational subjects gained 8% and 6% respectively. Other subjects for which there has been a noteworthy demand are investments, insurance, and etiquette, the last due undoubtedly to extensive magazine advertisements. The widespread interest since the war in books and periodicals relating to investments is worthy of remark.

To the registration file were added 6,328 new names, and 4,312 persons were re-registered, making 37,793 reader's cards outstanding in the new series, with many in the old series still to be exchanged.

New books to the number of 20,567 volumes, of which 825 volumes were gifts, were added to the library and branches. There were worn out or withdrawn 15,895 volumes, leaving a net gain of only 4,672, which makes the total number now in the library and branches 301,436 volumes. The prices of books apparently are still advancing; less than 5% more volumes than last year required an expenditure nearly 12% greater.

Exhibitions and Lectures.

The library halls are used more and more. The Forum, the Council of Social Agencies, the League of Women Voters, the Mental Hygiene Association, the Connecticut Valley Historical Society, and similar bodies hold open meetings of educational and civic value; the organizations affiliated with our own Association, such as the Poetry Society, the Art League, and the Garden Club, have given opportunity to hear many distinguished authors, critics, and lecturers; and systematic courses of well-attended scientific lectures have been conducted by the Museum of Natural History. A splendid exhibition of contemporary American paintings was arranged by the Art League in the fall; in the spring was held the exhibition of work by Connecticut valley artists—quite the most notable yet shown; while the Poetry Society and

the Garden Club joined with the Art League in bringing to Springfield during the winter a rarely beautiful collection of paintings of flowers and gardens. Portraits, landscapes, and still life by Xander Warshawsky were exhibited under the direction of the Springfield Women's Club; and the Publicity Club provided a notable series of prints illustrating the history and development of the art of wood engraving. Other prints, lent by the United States National Museum, showing the processes employed in the graphic arts, were later displayed.

In the art room there was the usual succession of exhibitions, including colored reproductions of modern paintings, old London in color, beautiful photogravures of Hopi Indians, the life of Christ as depicted by early Italian painters, Spanish interiors, quaint views of old New York, reproductions in color of Violet Oakley's mural paintings in the Pennsylvania capitol—all of which were from recent accessions to the art library. There were also an exhibition relating to Oberammergau and the Passion Play, lent by Miss Julia Buxton; spirited drawings of Mlle. Susanne Lenglen by Miss Marjorie Sankey; a fascinating display of etchings, lithographs, and block prints lent by the Print Makers Society of California; and exquisite Polish embroideries lent by Mrs. Walter E. Johnson. A display of much practical interest consisted of blouses made and embroidered by the Chestnut Street junior high school pupils, the designs being suggested by plates from the library, which were exhibited in conjunction with the resulting work. By far the most attention was excited by a large collection of daguerreotypes lent by Springfield citizens, showing well known figures of the past, together with men and women of today as they appeared in youth or childhood.

Phonograph Records.

For a number of years the funds available have made inadvisable any attempt to extend the scope of the library's work beyond the lines on which it was already organized. The one innovation the past year has been the installation of a collection of phonograph records bought with the income from the Grace Rumrill music fund. The purpose is to aid in the study and appreciation of music, so that the collection is confined to music of high quality, chiefly instrumental and orchestral. The popularity of this enterprise was instantaneous. A start was made with about one hundred records, which number was quickly increased to 168, including several gifts. Announcement was made in the Bulletin March 1, and in about two months the records were borrowed 1,131 times. Owing to the great demand, the number of records to be taken at one time is limited to two, and the period to a week. In general, practically all the records have been out all the time, with numerous names on the waiting list. The experiment was made with some hesitation for fear that the records would be injured, but only two have been broken and two scratched, the damage being cheerfully paid for.

The Branches.

The branches, although like the main library experiencing temporary diminution in the number of books lent, all report a year of active

service. No actual count is available, but apparently the number of readers in the rooms was larger than ever, and certainly "reference work" in response to requests for information and assistance increased. Special collections for clubs, schools, university extension classes, and other groups were set aside to facilitate study, while attractive books on various subjects were gathered and displayed for the casual reader. Many residents gave books and lent interesting pictures, specimens, or curios for display. Visits were made to playgrounds and schools to coordinate the work and call the libraries to the attention of prospective readers. Occasionally visits were made to persons confined to their homes. In this way, acquaintance was renewed with a child crippled by infantile paralysis some years ago, who had recently returned from the state school. Through the branch, she was brought to the attention of an organization which made it possible for her to continue her studies at home until she is advanced enough to enter another school. This instance is cited merely as an illustration of the interest taken by the branch librarians especially in their younger readers. Children have been kept from falling foul of the law, have been aided in continuing their schooling, young people and older ones have been advised and assisted in their callings, and counsel asked has been given in many personal matters. The close contact of the branch libraries with their public, and the resulting confidence and good will, offer an appealing opportunity for much friendly and helpful service not directly connected with books, should some philanthropist in the future desire to provide for extending such activities.

The Memorial Square Branch reports the need for Hungarian books and for additional books in Arabic, Armenian, Lithuanian, Polish, and modern Greek. Books in foreign languages are often borrowed by children for the women and old people in the homes, or for those whose diffidence or working hours prevent their visiting the branch. Many of the books are chosen particularly to promote Americanization.

At the Indian Orchard Branch, the organization of the children's work under a competent children's librarian has brought great improvement, while at the same time there has been an increase in the number of adult readers. The circulation of pictures has increased and the size of the picture collection doubled. The resignation of the librarian, Miss Beatrice E. Kelliher, because of ill health, has been received with much regret. For nearly three years she has devoted herself to the work with unflagging energy, enthusiasm, and success.

At the Forest Park Branch, the school, club, and reference work have received especial attention. A vertical file of "up-to-the-minute" information, too recent to be found in books, has been in constant use. But the most important consideration is the sorely overcrowded building and the prospect of an addition, referred to in the President's report.

The reports of the branch librarians are full of interesting details showing the many helpful and varied ways in which these branches reach and serve their public. In a brief summary it is impossible to do more than hint at this service, the extent of which, however, is indicated by the remarkable patronage which the branches enjoy.

Publications.

The library has been able to resume to some extent the publishing of little lists and catalogues which do so much to attract readers and interest them in desirable books. A catalogue of "Fiction," a new edition of which is required about once in seven years, was issued. Other lists were entitled "Helps with Children," "Information for Visitors," "The New Psychology," "Those Nerves," and two foreign lists, one "Libri in Italiano" and the other "Livres Français." The first of these, listing all the Italian books, is very necessary in reaching the older Italians who cannot speak English, and some of whom hesitate to visit the library. Children and friends are sent with checked copies of the list. The other list containing only recent French books is sought not only by French-speaking people but also by the general public. Systematic reading courses, serving a purpose somewhat akin to the popular correspondence school, have been issued by the American Library Association and distributed by the library. These valuable courses, arranged by experts, at present include accounting, business, and journalism. Other useful lists were "Popular Books in Science" and the "Wanderlust Book Shelf," likewise obtained from the American Library Association; "Wanderings and Adventures," given by the Century Company; and the Bookshelf for Boys and Girls," issued by the R. R. Bowker Company. But by far the most popular list was a little leaflet that the Horton Publishing Company kindly allowed us to reprint, entitled, "100 Worth While Books that Every American Between the Ages of Twenty and Forty-five Ought to Read." These were selected by a committee of ninety-six educated men and women, all of whose names are found in "Who's Who in America," and the titles are arranged in the order of their popularity. The first edition was quickly exhausted and continuing calls led to reprinting, while through a mention in the "Literary Review" it became known outside of Springfield, and requests to buy copies were received from all over the country. Special issues of the monthly "Bulletin" dealt with music, fiction, gardening, and business, the last being mailed to six hundred manufacturers and business houses. The fiction number prepared by Miss Richmond proved especially attractive, received attention in the press here and elsewhere, and many persons outside of the city desired to purchase copies. Mrs. Enos Smith, learning of the frequent need for a pamphlet describing the noteworthy buildings, monuments, paintings, stained glass, and similar objects in the city worthy of attention, very generously compiled, published, and gave to the library for free distribution an admirable booklet called "Interesting Things to See in Springfield, Massachusetts; Art and Architecture," which was based on a list that she formerly compiled for the Springfield Women's Club. It has proved illuminating to residents and helpful to many sight-seeing visitors.

No activity of the library is perhaps more important than the so-called reference work carried on in the art room and in Rice Hall. This consists of helping in the selection of general reading, or in choosing books on a special topic, or in the multitudinous quests for information on a specific point. The inquiries are of astonishing range, and touch

almost every subject under the sun—economic, literary, historical, and very often technical questions relating to business or manufacturing. To answer these inquiries satisfactorily the reference librarians must be alert, sympathetic, and possess a very wide range of information.

For a number of years past, especial effort has been made to provide enough copies of standard books so as to supply the reader with the book that he wants when he wants it. Few things interfere more with the usefulness of the library than repeated failures to obtain desired books. One Saturday in March a test was made to ascertain how successfully the library was meeting these demands. The attendants in Rice Hall kept a record of every book asked for that they were unable to supply. Five hundred and fifty-six books other than fiction were taken out during the day, while the number of books asked for that could not be supplied was twenty-eight. Only three of these books were not owned, and two of them were law books outside the scope of the collection. Five of the books were new, and so particularly likely to be out. Five others were temporarily in request because of lectures or other special reasons. The remaining fifteen were miscellaneous books which happened to be in circulation. The result would indicate that in general the demand is being met with reasonable success.

Rice Hall, in spite of its size, is becoming overcrowded, especially during the hours when it is used extensively by pupils from the high schools. It has happened more than once, for example, that several hundred pupils have come almost simultaneously to look up an assignment, and almost continuously through the winter they filled the room at certain hours. They are considerate in their conduct, but their presence in such numbers inevitably hinders the use of the room by adults. It seems very desirable that provision should be made in some other part of the building where the books set aside for high school use may be shelved and the pupils consult them freely without interfering with other readers.

Gifts.

The library is indebted to many citizens for generous gifts of books and periodicals. Even popular works of history, biography, travel, fiction and the like, of which there are already copies in the collection, often serve a useful purpose at the hospital, or in some of the many deposits which the library maintains at different points in the city. Among the unusual gifts may be mentioned valuable bound files of Springfield newspapers received from the *Springfield Union*; a silver medal commemorating the opening of the Hampden County Memorial Bridge, presented by Mr. George Dwight Pratt, chairman of the dedication committee; a bound typewritten manuscript entitled, "The Springfield Military Census of the World War," received from the city clerk, which, together with the cards made by the Hampden County chapter of the Red Cross presented previously, give us a very complete record of the names and service of all Springfield men who participated in the war; and a typewritten transcript, "Vital Records of Wilbraham,

Massachusetts, to the Year 1850" from the late Ellen T. Peck, which forms an important accession to our extensive genealogical department.

The Staff.

Ten valued assistants resigned during the year, most of them to take positions elsewhere, three to be married. During the prolonged absence from illness of several important members of the staff their associates labored earnestly and unsparingly to carry on the work without detriment to the service. A sad loss was suffered in the sudden death of Miss Lucy C. Richmond, who had conducted the circulating department since 1914. Coming to Springfield after many years as librarian of the Adams Public Library, and with previous experience in teaching, she brought enthusiasm for her work and a fine taste for the best in literature and art. She was never too engrossed to stop and aid any inquirer. Her unflinching graciousness, tact, and sense of justice won the sincere regard of all her associates, and her death brought expressions of regret and warm appreciation from the public whom she so eagerly served.

Looking Forward.

In reviewing the year, the record of accomplishment should not obscure the many avenues of service which it has not been possible to enter upon. Several sections of the city are in need of branches. Suitable quarters at certain branches, such as are available in other cities, for social work—for study, debating, dramatic and musical clubs, and for gatherings of the foreign groups—would be useful. One or more staff members to devote themselves to forms of Americanization work which only a library can successfully undertake would find ample employment. More experts are needed to assist business men, manufacturers, and young workingmen, who constantly seek technical information. Small branches at hospitals have been found desirable elsewhere, partly to divert the tedium of convalescence, often to assist nervous and mental patients toward recovery; and a hospital branch means not simply a deposit of books but part time of a trained librarian to make it effective. Volunteer workers from the Young Women's Christian Association, who formerly took charge of library deposits in several factories, visiting them on regular days to distribute the books, rendered valuable service, and if the staff could afford assistants to continue the work, they could do much to encourage good reading. Only about one third of the population are enrolled as card holders, and while this figure is not low compared with cities generally, it shows how much remains to be done to make known the library's resources and the practical advantages of using them. Indeed, on every hand are inviting opportunities for wider service, awaiting only the funds necessary to transmute possibilities into realities.

Respectfully submitted,

HILLER C. WELLMAN, *Librarian.*

Statistics of Accessions for 1922-1923

	Volumes	Volumes
Added by purchase, Central Library.....	11,389	
Added by purchase, Branches.....	8,353	
Added by gift.....	825	
Total gain.....	20,567	
Withdrawn.....		15,895
Net gain.....		4,672
In the Library, May 1, 1922.....		296,764
In the Library, May 1, 1923.....		301,436

Statistics of Circulation 1922-1923

CITY LIBRARY	ADULT Volumes	JUVENILE Volumes	Volumes
Fiction.....	243,129	38,733	
Periodicals.....	9,126	1,800	
General Works.....	413	480	
Philosophy.....	4,162	172	
Religion.....	4,082	1,157	
Sociology.....	7,220	1,539	
Education.....	2,073	23	
Philology.....	1,779	85	
Natural Science.....	3,476	11,770	
Medicine.....	3,076	162	
Useful Arts.....	11,768	2,281	
Fine Arts.....	7,794	460	
Music.....	12,224	162	
Amusements.....	2,657	1,159	
Literature.....	15,236	7,529	
Foreign Literature.....	9,956	103	
History.....	5,970	8,067	
Biography.....	6,735	3,061	
Geography.....	5,716	8,898	
Myths.....		12,045	
Juvenile (jj).....		31,233	
	356,592	130,919	
Total circulation from City Library.....			487,511
Forest Park Branch.....			228,096
Indian Orchard Branch.....			62,861
Memorial Square Branch.....			199,491
Hospital Collection.....			699
Estimated circulation at schools and other agencies.....			199,136
Total circulation of books.....			1,177,794
Pictures circulated.....			139,696
Phonograph records circulated (about March 1 to April 30).....			1,131
Deposited in 418 classrooms:—			
Supplied for one-half school year.....			26,620
Renewed for second half school year.....			15,374
			41,994

Donors of Books, Pamphlets, and Other Articles

	Volumes	Pamphlets	Miscellaneous
Adams, William F.			35 Pictures
Alexander, Amy B.			Magazines
Baker, Mr. A. G.		67	
Ball, Eva	28		
Bates, Dr. Everett A.	2		
Berry, George M.	16		Magazines
Bowman, Henry H.	2		
Bradley, Harold			2 Goldfish
Buffinton, Howard M.		3	
Bugbee, Dr. N. Penn	1		
Carmichael, Mrs. John H.		2	
Carter, E. K.		1	
Chaffee, Mrs. Elizabeth F.			1 Case of Birds
Childs, Fanny R.	2		Sheet Music
Clancey, J. L.		24	
Clark, A. H.		2	
Clark, Mrs. Embury	1		
Cronan, Mary H.			69 Pictures
Davis, Dr. William E.	22		
de Rochemont, Emilie		1	
Desoe, Harlan	1		
Deyo, Eva Ordella	2		1 Valentine 1 Daguerreotype
Eddy, Earnest	3		
Emerson, Mrs. H. C.	36		50 Prints
Emery, Charles, Estate	44	1	3 Framed Pictures 7 Magazines 3 Post Card Albums Album of Fashion Plates 55 Pictures
Farrar, Ida F.		1	
Fitzgerald, Mary E.			6 Pictures
Frederick, Mrs. C. R.	3		
Fuller, Mrs. A. Edward			3 Pictures
Gardner, George C.			1 Magazine
Gillet, Louis B.	1		
Green, S. M.	3	8	
Harris, Mrs. Frederick	76		Magazines
Harris, Henrietta C.			
Hawley, Harry W.	1		
Hooker, Richard	1		
Hoschke, Fred A.			9 Pieces of Music
Hunting, Henry R.			Letters, Pamphlets, and News- papers
Ingersoll, James C.			Flag
International Y. M. C. A. College Library	4		
Ireland, George P.	1		
Irwin, Dr. Vincent J., Jr.			10 Medical Magazines
Jamieson, Mrs. Joseph W.			15 Pictures
Johnson, Anna M.		1	
Johnson, Henry R.	1		
King, Clinton	1		
King, William C.	1		
Lakin, Bertha	2		
Levin, Abraham	1		
Lewis, Mrs. Seth Ames	2		2 Newspapers
Lombard, Jennie S.	2		Magazines
Lyman, Mrs. Moses	21		
Maris, Miss			Magazines
Martin, Victor J.			4 Maps
Matzinger, Martin	1		
Merriam Co., G. & C.	1		
Miller, George	5		Magazines
Miller, Grace	3		
Miller, John H.			2 Pictures
Mitchell, Walter H.	2		
Mare, Walter	1		
Morison, Avis		9	1 Booklet 1 Piece of Music Pictures
Morris, Robert O.	2		
Murray, Mrs. A. M.		1	
Myrick, Herbert	1	1	
Myrick, Mrs. Herbert			Magazines
North, F. E.			3 Pictures
Potter, Mrs. Eleanor E.			32 Leaflets
Rice, Dr. Allen G.	4		

	Volumes	Pamphlets	Miscellaneous
Rogers, Julia	20		1 Piece of Music
Seabury, B. Hammett	1		
Shackleton, Mrs. Albert	3		
Shattuck, Miss Emma E.			13 Periodicals
Sherry, Charles	1		
Shurtleff, Clara			4 Daguerreotypes
Skinner, Henry H.	14	2	Pictures
Smith, Mr. Fred H.			
Snyder, Alexander	4		
Sotiropoulos, Stavros	11		
Springfield Chamber of Commerce	35		Magazines
Starke, Viola	1		
Stone, William C.		211	
Swazey, Dr. Walter	2		
Theosophical Society	3		
Thrall, Emily J.	123	17	
Toomey, Ursula		1	
Turner, Arthur H.			6 Pieces of Music
Wade, Eleanor A.	2		
Walters, Francis M.		50	
Wellman, Hiller C.	6	1	
Wesson, Mrs. Walter	8		
Wilson, Bernice	1		
Woodward, Mrs. Harry A.	119	58	50 Pictures 10 Portfolios 115 Magazines
Wright, Harry A.		1	

Report of the Art Museum

A consistent effort to enlarge the service of the Art Museum and interpret its collections by talks before various organizations has been made during the past year. The museum can, and does, make itself helpful in practical ways. Art is not a needless luxury, it is a friendship, offering inspiration and sympathy. To increase the knowledge and interest of the visitor contributes to a better appreciation of, and love for, beauty.

All of the high schools and many of the grammar schools, the continuation school, the MacDuffie School, and the educational department of the Y. M. C. A. have made use of the collections in connection with their classes in civics, history, and design. The schools of Chicopee, Chicopee Falls, West Springfield, Ludlow, and Palmer have also been received.

The illustrated stories given by Miss Sargent in connection with the history lessons of the sixth-grade pupils of the public schools were continued. Some of the teachers and mothers of the children who attended have taken pains to express their appreciation of the added interest which the children have taken in history on account of these talks.

In an effort to make known the resources of the museum to those who desire to make practical use of the collections, the following clubs have been received: The Traveling Club, Entre Nous Club, Review Club, Springfield, Westfield and Northampton Delphian Societies, the Women's Club of West Springfield, and of South Hadley Falls.

Interest in the Saturday afternoon drawing class has continued and under the efficient instruction of Miss Ruth Marsden, the teacher provided for us by the school board, the class has made excellent progress.

During the year Mr. Smith added to the collection the following oil paintings:

- "Autumn," by Arthur Parton.
- "Woman in Blue," by E. L. Garrido.
- "The Stage Coach," by J. H. Cocks.
- "Courtship," by J. G. Brown.
- "Reclining Nude," by Joseph Coomans.
- "By Moonlight," by M. F. H. de Haas.
- "The Brunette," by Walter Blackman.
- "Two Broods," by J. Rosierse.
- "Richelieu," by P. J. Sinibaldi.
- "Feeding the Robins," by J. H. Witte.
- "New Moon," by George C. Lambdin.
- "Ausable," by William Hart.
- "Rocky Coast," by J. B. Bristol.

Two mahogany cabinets have also been added, together with an onyx stand, an inlaid table, and two cloisonné enamel mandarin hat stands. The collection of rare and beautiful books has been considerably increased. Some small silver ornaments of very delicate Chinese workmanship were presented to Mr. Smith for the collection by Mr. Y. Y. Chang of the National Southwestern University of Kiang-Su, China. A silver medal commemorating the opening of the Hampden County Memorial Bridge was presented to Mr. Smith by Mr. George A. Bausman, and Mr. Frederic M. Jones gave two of the bronze medals together with the official programme of the dedication.

At the inauguration of the City Government on January first of this year, a testimonial in the form of an illuminated parchment was presented to Mr. and Mrs. Smith by His Honor, the Mayor, and the City Council of Springfield. Both Mr. and Mrs. Smith were much gratified with this evidence of the appreciation and good will of the city, so thoughtfully expressed.

The addition to the museum building so long contemplated by the City Library Association was commenced about a year ago, but owing to delays in obtaining some of the necessary materials has but just been finished. We are pleased to be able to hold our annual meeting in it today, but our pleasure is heavily overshadowed by the absence of Mr. George Walter Vincent Smith to whom Springfield is indebted for the truly wonderful collection housed in this building. It seems hard that he could not stay to finish the work he had planned, for while his life had been prolonged beyond the usual time, he never, for a moment, lost his interest and enthusiasm for the great cause which dominated his life and for which he spent not only a large fortune but gave just as freely of his time and strength. No man ever devoted himself more thoroughly to a public cause; only five days before his death he was here planning for the future of the museum and looking forward to the time when he could arrange in these rooms the many treasures still remaining at his house. To give to others a part of the joy and pleasure which he experienced was his constant endeavor for the past fifty years, and to that end he labored and denied himself many personal luxuries. How well he accomplished his object the museum testifies.

At this, the first annual meeting at which we are not sustained by his presence, it is but fitting that I should express the great personal sorrow felt by the entire staff of the museum at the loss of one who by his constant appreciation and intelligent, heart-felt interest inspired to a peculiar extent the respect and loyalty of his employees. That Mrs. Smith, so closely in accord with him, will carry out his plans is the one bright spot to us who have so long been associated with him.

Respectfully submitted,

ELEANOR A. WADE, *Curator.*

Report of the Museum of Natural History

This report is an endeavor to answer three questions: First, What is the museum doing for children; second, What is the museum doing for adults; and third, What are the museum's needs?

Girls and Boys at the Museum.

For children this year there have been the usual educational games, story telling, prize contests, special exhibits; and this spring field trips have been undertaken for the first time. Also there has been given instruction in subjects supplementing school work; and over all, the effort has been made to answer boys' and girls' questions for 365 days. The requirements of this last-mentioned part of museum work may be indicated by the following queries: "How can wood turn to stone?" Another question: "If dinosaurs lived millions of years before there were people on the earth, how could a photograph be taken of one?" To the youthful mind here is a case of nature faking, and there must be no failure on the museum attendants' part to inform the questioner concerning truths revealed through nature's records. This is a feature of museum work of which no impressive figures can be compiled.

Nature stories have attracted 543 little children; prize contests are annually interesting an average of 158 competitors; and now the spring hikes for boys are bringing to the museum collections to be studied when weather makes trips inadvisable.

Girls and Boys at School.

Co-operative methods can perhaps best be indicated by accounts of work with a teacher of the Chestnut Street school who took girls and boys to the municipal tower. There a lesson was given on the geology of the region, early settlement, and relations with Indians. Then the Springfield of today with its buildings and industries held attention. Following this survey from the campanile, class after class came to the museum, where the session was continued with maps and specimens. Granite from the hills they had seen, and rock replaced by the elevator used, had acquired a new meaning. They handled implements made by Indians, and coming to recent times studied the building stones of the city's important structures.

Another group with which co-operative teaching has been developed satisfactorily is the Girls' Continuation School. Approximately 600 pupils have this year heard talks by teachers and museum staff on industrial subjects. Heads of departments of some of the city's large dry goods stores, and state supervisors, have on several occasions attended sessions and spoken informally.

Certain of these lectures that have proved especially interesting have been repeated to other groups. By request the museum was open the evening of November 13 for Girl Scouts, to whom the talk on

"Sources of Jewelry" was given. Lecture room, lantern slides, and museum specimens have been used for Scout meetings, and examinations for certain merit badges have been conducted by the museum staff.

It is in such ways that the museum co-operates in the work of schools, clubs, and, in fact, any group banded together for study of natural history.

Prize Contests.

Interest shown in bird study contests has led Mr. Robert O. Morris generously to add to his gifts cash prizes for identification of trees.

Tree Labeling

Tree labeling also made possible by gifts from Mr. Morris has progressed during the year. One hundred and eleven specimens have now been named along city streets, and about school buildings where boys and girls may study them in preparation for prize contests.

What the Museum is doing for adults.

Considering the second question, What is the museum doing for adults, an excellent lecture season with an attendance of over three thousand persons at a cost of about seven cents per capita can be reported. There were three courses in which classes worked for academic credit. The speakers were Dr. George E. Dawson, whose subject was "Scientific Intelligence and Human Survival," and whose audiences never numbered less than one hundred persons. The museum is grateful to Dr. Dawson for generously giving each year his services in lectures that are indeed a credit to the institution.

Dr. William B. Kirkham followed Dr. Dawson in six lectures of equal importance and interest. The subject, "History of Man from the Biological Standpoint," developed Dr. Kirkham's discussion of the previous year, and at points linked up with Dr. Dawson's course, altogether forming series of exceptional educational value.

A spring course on the "Relation of Plants to Their Habitat," by Miss Fannie A. Stebbins, was another appreciated opportunity. Three half-day field lessons supplemented an equal number of lectures at the museum, and theses by members of the class indicate interest awakened by study of plant areas.

In addition to these credit courses, there have been Professor Loomis's first-hand accounts of "Hunting Extinct Camels in Wyoming"; a cinema lecture by William Finley that gave nearly one thousand persons glimpses of remote parts of the country from the Gulf Coast to the Rocky Mountains; and lectures by Frederick Scott and Manley B. Townsend conveyed to large audiences the appeal of the out-of-doors.

Thanks are due and cordially given by the museum to the daily papers for publishing excellent and detailed reviews of these lectures.

The Museum's Needs.

Thrice in its history, the museum has been obliged to find a larger home. On no occasion, however, was the need of ampler quarters greater than at the present time. A larger Springfield and its huge

schools developing nature-study courses, make correspondingly increased demands that the museum, through lack of a lecture room in the building, space for supplementary exhibits, and a children's room, finds impossible to meet.

Such generosity as has resulted in the Natural History Museum and collections of which Springfield is justly proud, is continually adding to those collections, as is indicated in the appendix of this report. Now the museum is embarrassed by inability to show appreciation of gifts by suitably exhibiting them; and much of the value of material displayed is lost through overcrowding. The rotation of exhibits resorted to, while desirable to a certain extent, is difficult to maintain by the museum's small staff; but the day is sure to come when funds will be given for a larger building, which will open the way to expansion of educational work and to exhibitions that through proper installation will interest and instruct to a vastly greater degree.

The Psychological Laboratory.

Dr. George E. Dawson reports that during the year, June 1, 1922, to June 1, 1923, 541 children and young people have been examined in the psychological laboratory. Of these, 369 have been children from the elementary schools, representing the usual problems of retardation, discipline, or maladjustment, and 172 have been from the junior and senior high schools, representing problems of educational and vocational guidance. Of the latter, 112 have come from the junior high schools and 60 from the senior high schools. Since these have been examined largely at their own request, or that of their parents, this branch of the work may be regarded as evidence of a rapidly growing community interest in the laboratory.

Respectfully submitted,

GRACE P. JOHNSON, *Director.*

Gifts to the Museum of Natural History

The following contributors have made much appreciated additions to the Museum collections:—

- Adams, W. F. Colored photographs of flowers.
 American Museum of Natural History. Geological, archæological and other collections.
 Bagg, Aaron C. Ptarmigan skins collected on the last MacMillan expedition.
 Bates, Mrs. Everett A. Petrified wood, clays, and tree sections.
 Bemis, Albert H. Sea-shells, starfish, and Mexican figurine.
 Bidwell, Mrs. Frank E. A rare collection of corundum and associated minerals from Chester, Mass., and North Carolina.
 Bill, Nathan D. Colonial relics.
 Booth, Mary A. Cabinet of china, pewter, Colonial mirror, portrait, etc., part of Booth bequest before mentioned.
 Botanical Society (Springfield). Funds (\$20.49) for publication of map in Museum Bulletin No. 3.
 Chapin, Mrs. Alfred H. Necklace of Jamaican seeds.
 Clark, Dr. David. Nest with unusual construction.
 Clark, Robert A. Botanical specimens.
 Colton, John W. Geological specimens.
 Emery, Charles A. Microscope, photographic material, books, etc.
 Foster, Robert C. Moths and butterflies.
 Hildreth, W. K. Pressed plants.
 Ingersoll, James C. Early Federal Flag.
 Ireland, Mrs. Oscar B. Eagle shot by Oscar B. Ireland's orderly in the Shenandoah Valley during the Civil War.
 Kirkham, Mrs. James W. Sea-shells and archæological specimens.
 Kirkham, Marguerite. Snakes, cocoons, and bird's nest.
 Kirkham, Dr. William B. Sea-shells, coral, photographs, Dutch and South American shoes, live mice and cages, snake model.
 Lakin, Bertha. Two volumes, "Ornithology or Science of Birds" and "The Birds of North America," by Studer.
 McClean, Dr. George C. Collection of bird's eggs.
 Metcalf, Robert W. Mounted mink.
 Miller, Robert O. Colonial sampler and English dress sword.
 Morris, Robert O. Models to illustrate native snakes, and funds for tree labeling and for bird study prize contests.
 Moynihan, Mrs. Mary. Colonial relics.
 Parsons, Newell A. Collection of minerals.
 Phillips, Mrs. H. M. Hawaiian collection.
 Pitkin, Prof. P. H. Alligator from Bay of Panama.
 Shurtleff, Clara M. Shell cameo, cairngorm stone, topaz, garnet, and opal.
 Wallace, Mrs. A. B. Pressed plants collected by Mrs. Henry R. Vaile.
 Wesson, Mrs. Walter H. Carnelians, and moss agate set in diamonds, for the jewelry collection.
 Wild, J. O. Mounted sea-mosses.

Treasurer's Report

FOR THE FISCAL YEAR ENDING APRIL 30, 1923

RECEIPTS

Balance brought forward from year 1921-1922.....	\$129.53	
Appropriation from City of Springfield.....	143,500.00	
Dog tax from City of Springfield.....	6,220.00	
Alice W. Adams fund.....	65.00	
Aston fund.....	50.00	
Elizabeth D. Rice Bianciardi fund.....	805.00	
Fanny Hazard Bond fund.....	200.00	
Samuel and Rhoda Colton Booth fund.....	775.00	
John Bryant fund.....	300.00	
Chester W. Chapin fund.....	500.00	
O. H. Greenleaf fund.....	300.00	
Augustus G. Hazard fund.....	250.00	
J. Searle and Julia S. Hurlbut fund.....	50.00	
The King fund.....	231.25	
Charles M. Kirkham fund.....	220.00	
Charles S. Marsh fund.....	250.00	
Charles Merriam fund.....	385.00	
Sarah J. Moore fund.....	320.00	
Caroline L. Rice fund.....	250.00	
Grace Rumrill music fund.....	560.00	
Joseph L. and Margaret H. Shipley fund.....	130.00	
George W. Tapley fund.....	60.00	
James M. Thompson fund.....	250.00	
Dr. William Tully fund.....	45.00	
David A. Wells fund.....	5,520.00	
Net income, Edwards Street house.....	724.98	
From Catharine L. Howard Library Association.....	138.57	
Interest on bank balances.....	714.74	
Fees for overdetection of books.....	8,095.03	
Net receipts from duplicate collection.....	603.26	
Non-resident cards.....	209.50	
Miscellaneous receipts.....	1,021.83	
Total receipts.....		\$172,873.69

EXPENDITURES

GENERAL EXPENSES

Engineers, janitors, and watchman.....	\$5,578.69
Fuel.....	6,608.88
Insurance, repairs, care of grounds, and miscellany.....	4,100.68
Refund of money borrowed from Porter fund.....	1,000.00
	<hr/>
	\$17,288.25

LIBRARY EXPENSES

Salaries.....	\$57,027.04
Pages.....	2,248.76
Sunday and holiday service.....	491.53
Cleaning.....	2,630.88
Books.....	11,915.70

CITY LIBRARY ASSOCIATION

Periodicals	\$1,412.67
Binding	4,445.47
Printing	1,785.65
Stationery and supplies	2,162.31
Furniture and improvements	1,713.92
Repairs	2,509.33
Light and power	2,257.43
Postage	733.57
Express and freight	365.96
Telephone	322.57
Miscellany	510.01

\$92,532.80

FOREST PARK BRANCH

Salaries	\$13,574.40
Books, periodicals, and binding	5,123.60
Fuel, light, telephone, and miscellany	1,701.46
Repairs	1,575.35

\$21,974.81

INDIAN ORCHARD BRANCH

Salaries	\$4,526.90
Books, periodicals, and binding	1,507.45
Fuel, light, telephone, and miscellany	1,015.29

\$7,049.64

MEMORIAL SQUARE BRANCH

Salaries	\$11,170.48
Books, periodicals, and binding	5,507.72
Repairs	334.73
Fuel, light, telephone, and miscellany	1,872.30

\$18,885.23

ART MUSEUM

Salaries	\$5,427.57
Hall of Sculpture	497.30
Cleaning, light, and miscellany	2,134.61
Repairs and improvements	3,411.45

\$11,470.93

MUSEUM OF NATURAL HISTORY

Salaries	\$2,282.56
Books for Catharine L. Howard Library	134.26
Light, telephone, and miscellany	257.72
Furniture and repairs	579.10
Lectures	248.85

\$3,502.49

Total expenditures	\$172,704.15
Balance	169.54

\$172,873.69

G. W. V. SMITH ART DIRECTOR'S ACCOUNT

Balance May 1, 1922	\$1,242.76
Interest on bank balances	36.08

Balance April 30, 1923 \$1,278.84

TREASURER'S REPORT

25

FUND FOR SCIENCE MUSEUM PUBLICATIONS

Balance May 1, 1922		\$24.73
Interest on two-fifths of \$1,000 St. Louis and San Francisco R. R. 4% bonds		16.66
	<i>Less:</i>	<u>\$41.39</u>
Amount used for purchase of \$1,000 St. Louis and San Francisco R. R. 4% bonds		24.73
Balance April 30, 1923		<u>\$16.66</u>

SHERMAN D. PORTER FUND

Balance May 1, 1922		\$1,918.56
Interest on \$1,000 Adams Express Co. 4% bonds	\$40.00	
Dividend on 20 shares Southern Pacific Company stock	120.00	
Interest on \$3,000 Baltimore and Ohio R. R. 5% bonds	150.00	
Dividends on 20 shares Pacific Oil Company stock	60.00	
Profit on sale of \$2,000 United States Steel Co. 5% bonds	136.44	
Interest on \$1,000 New York Central R. R. 6% bond	60.00	
Interest on \$2,000 Sinclair Consolidated Oil Corporation 7% bonds	140.00	
Interest on bank balance	11.63	
Refunded	<u>1,000.00</u>	<u>1,718.07</u>
	<i>Less:</i>	\$3,636.63
Amount used for purchase of \$1,000 New York Central R. R. 6% bond	\$1,038.50	
Amount used for purchase of \$10,000 Sinclair Consolidated Oil Corporation 7% bonds	<u>744.84</u>	<u>1,783.34</u>
Balance April 30, 1923		<u>\$1,853.29</u>

DENTAL LIBRARY FUND

Balance May 1, 1922	\$59.95	
Interest on three-fifths of \$1,000 St. Louis and San Francisco R. R. 4% bond	23.34	\$83.29
	<i>Less:</i>	
Amount used for purchase of \$1,000 St. Louis and San Francisco R. R. 4% bond		<u>\$59.95</u>
Balance April 30, 1923		<u>\$23.34</u>

CHARLES M. KIRKHAM FUND FOR BEAUTIFYING GROUNDS

Balance May 1, 1922		\$542.96
Interest on one-half of \$6,000 Southern Pacific Co. 4% bonds	\$120.00	
Interest on one-half of \$5,000 American Telephone and Telegraph Co. 4% bonds	100.00	
Interest on \$1,000 Baltimore and Ohio R. R. 5% bonds	50.00	
Interest on bank balance	<u>11.52</u>	<u>\$281.52</u>
Balance April 30, 1923		<u>\$824.48</u>

INSURANCE PREMIUM RESERVE FUND

Balance May 1, 1922	\$33.20	
Interest on \$1,000 St. Louis and San Francisco R. R. 4% bond	<u>40.00</u>	<u>\$73.20</u>

CITY LIBRARY ASSOCIATION

Less:

Amount used for purchase of \$1,000 St. Louis and San Francisco R. R. 4% bond.....	\$33.20	
Balance April 30, 1923.....		\$40.00

THE KING FUND

Balance May 1, 1922.....		\$107.81
Cash difference on sale of \$2,500 Northern Pacific—Great Northern Joint 6½% bonds and purchase of \$2,500 Missouri Pacific 6% bonds.....	65.98	
Balance April 30, 1923.....		\$173.79

WILLIAM A. BIRNIE FUND

Cash received.....	\$500.00	
Interest on one-half of \$1,000 Sinclair Consolidated Oil Corporation 7% bond.....	35.00	\$535.00

Less:

Amount used for purchase of \$10,000 Sinclair Consolidated Oil Corpora- tion 7% bonds.....	500.00	
Balance April 30, 1923.....		\$35.00

SAMUEL AND RHODA COLTON BOOTH FUND

Cash received.....		\$22,500.00
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Less:

Disbursements:		
Cost of sale Mary A. Booth property.....	\$405.50	
Purchase of \$10,000 Goodyear Tire and Rubber Co. 8% bonds.....	11,649.17	
Purchase of \$10,000 Winchester Repeating Arms Co. 7½% bonds.....	10,356.25	\$22,410.92
Balance April 30, 1923.....		\$89.08

ELIZABETH D. RICE BIANCIARDI FUND*

Cash received.....	\$12,240.79	
Interest on bank balance.....	6.86	\$12,247.65

Less:

Disbursements:		
Purchase of \$7,500 Sinclair Consolidated Oil Corporation 7% bonds.....	\$7,560.20	
Check for difference on sale of \$2,500 Northern Pacific—Great Northern Joint 6½% bonds, \$8,500 American Telephone and Telegraph Co. 4½% bonds and purchase of \$5,000 Southern Railway 6½% bonds, \$10,000 Missouri Pacific 6% bonds.....	4,049.56	
Purchase of \$1,000 Missouri Pacific R. R. 4% bond.....	637.89	\$12,247.65

Balance April 30, 1923.....		None
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*Income accounted for in general fund.

TREASURER'S REPORT

MISCELLANEOUS ACCOUNT

Received from Springfield Institution for Savings on mortgage of \$100,000	\$91,000.00	
Income from rent of property at 29 Edwards Street	750.00	
Income from rent of property at 37 Edwards Street	720.50	
Interest on bank balance	102.72	\$92,573.22
	<hr/>	
<i>Less:</i>		
Payment on principal 29 Edwards Street property	\$22,000.00	
Expenses of 29 Edwards Street property: Taxes, repairs, insurance, etc	1,327.93	\$23,327.93
	<hr/>	
Payment on principal 37 Edwards Street property	\$14,000.00	
Expenses of 37 Edwards Street property: Taxes, repairs, etc	686.52	14,686.52
	<hr/>	
Payments on contract for construction of New Art building	50,845.63	
Purchase of Henry G. Taylor collection of old blue American china	2,635.00	
Interest paid	748.15	92,243.23
	<hr/>	<hr/>
Balance April 30, 1923		\$329.99

507
Sp 8
1923/24

ANNUAL REPORT
OF
THE CITY LIBRARY ASSOCIATION
of
SPRINGFIELD, MASSACHUSETTS

For the Year Ending April Thirtieth

1924

THE LIBRARY OF THE

OCT 14 1924

UNIVERSITY OF ILLINOIS

CITY LIBRARY
ART MUSEUM
MUSEUM OF NATURAL HISTORY

Officers and Directors from 1864 to 1924

Presidents

KING, JOHN L.,	1864-1872	RUMRILL, JAMES A.,	1892-1901
HARRIS, DANIEL L.,	1873-1879	OLMSTED, JOHN,	1901-1904
BOND, EPHRAIM W.,	1880-1891	BILL, NATHAN D.,	1904-

Vice-Presidents

HARRIS, DANIEL L.,	1864-1873	RUMRILL, JAMES A.,	1884-1892
BOND, EPHRAIM W.,	1873-1880	OLMSTED, JOHN,	1892-1901
THOMPSON, JAMES M.,	1880-1884	BILL, NATHAN D.,	1901-1904
MORRIS, ROBERT O., 1904-			

Treasurers

SAFFORD, JAMES D.,	1864-1889	BOWMAN, HENRY H.,	1889-
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Clerks

RICE, WILLIAM,	1864-1897	DANA, JOHN COTTON,	1898-1902
WELLMAN, HILLER C., 1902-			

Directors

APPLETON, JULIUS H.,	1902-1904	KIRKHAM, JAMES,	1864-1893
BEEBE, HENRY J.,	1897-1919	KIRKHAM, JAMES W.,	1893-
BILL, NATHAN D.,	1887-	KNOWLTON, MARCUS P.,	1902-1918
BLISS, GEORGE,	1864-1873	LEE, HENRY S.,	1893-1902
BOND, EPHRAIM W.,	1864-1891	MERRIAM, CHARLES,	1864-1887
BOWLES, HENRY L.,	1920-	MERRIAM, GEORGE S.,	1896-1902
BOWLES, SAMUEL, 2d,	1866-1878	MERRICK, WILLIAM,	1883-1887
BOWLES, SAMUEL, 3d,	1878-1902	MORRIS, ROBERT O.,	1901-
BRAND, JOHN W. B.,	1923-	OLMSTED, JOHN,	1889-1905
CARROLL, JAMES B.,	1918-	PACKARD, AZEL A.,	1909-1923
CHAPIN, CHARLES O.,	1872-1882	PRATT, GEO. DWIGHT,	1905-
CHAPIN, CHESTER W.,	1864-1883	ROBINSON, JOHN C.,	1923-
CORCORAN, LUKE,	1896-	RUMRILL, JAMES A.,	1884-1909
DEANE, GEORGE H.,	1884-1890	SHURTLEFF, WM. S.,	1890-1896
ELLIS, RALPH W.,	1923-	SKINNER, HENRY H.,	1902-1923
GILBERT, ADOLPH W.,	1922-	SMITH, G. W. V.,	1892-1923
GILLETT, FRED'R'K H.,	1893-	SMITH, HORACE,	1877-1893
GREENLEAF, O. H.,	1873-1896	SOUTHWORTH, C. H.,	1892-1897
GRIFFIN, SOLOMON B.,	1920-	STEBBINS, JOHN B.,	1864-1899
HAILE, WILLIAM H.,	1892-1901	THOMPSON, JAMES M.,	1864-1884
HARRIS, AZARIAH B.,	1880-1891	TYLER, P. B.,	1864-1866
HARRIS, DANIEL L.,	1864-1879	WALKER, GEORGE,	1864-1877
HAYNES, STANFORD L.,	1908-1920	WALLACE, ANDREW B.,	1904-1923
HOLLAND, JOSIAH G.,	1864-1872	WALLACE, ANDREW B., JR.	1924-
HOWARD, GEORGE E.,	1873-1889	WESSON, D. B.,	1888-1893
KING, JOHN ² L.,	1864-1872	WESSON, W. ² H.,	1899-1921

In Memoriam

Andrew B. Wallace

Death's invasion of this body gives quickened sense of how much Springfield has gained by service through the City Library Association. Andrew B. Wallace, attentive to all the duties of citizenship, gave himself freely in this relationship. His sympathetic appreciation of the best community interests, his shrewd sense of values, and sound business judgment helped give poise and wise direction to our deliberations and action.

The Scotch birth and training that kept Mr. Wallace in touch with the people, also equipped him with the sensibility to appreciate the finer phases of life in books and art, of which he was a lover and patron. He had understanding of all the helpful purposes that are taking shape in this institution, and gave generously toward their advancement. The appeal of nature and of fine craftsmanship enriched his life and quickened the fellowship which was so genuine and kindly, and is so sorely missed by all who knew him.

Adopted by the Board of Directors, January 10, 1924.

A. Willard Damon

In the death of A. Willard Damon, the City Library Association has lost a friend of long standing, who held strong views as to the usefulness of its work and had contributed generously both of his time and money. For the last ten years Mr. Damon served as an Auditor, and in that capacity showed the same fidelity and sense of public obligation that were evidenced in all his activities. As an officer of the Association, he will be missed no less for his genial and kindly presence than for the service, which he rendered so faithfully.

Adopted by the Board of Directors, January 10, 1924.

Report of the President

Few people realize, I suspect, what an economical expedient a public library is for supplying the book needs of a community, and what large returns the public get from the money expended. The total maintenance of the main library and branches cost the city last year about 90¢ for each inhabitant. The man who buys one new book in the course of a year probably pays more than twice that amount; one good phonograph record costs nearly double. Many people of very moderate means do not hesitate to patronize circulating libraries, and the cost of borrowing a single novel mounts to 90¢ in a few weeks. Through the City Library and branches every citizen for his 90¢ not only may draw novels all through the year, but may take home any reasonable number of other books chosen from hundreds and thousands of volumes many times more costly than novels. He has the free use, also, of a quarter of a million pictures ranging from cheap prints to expensive photographs and engravings. He has at his command music scores for all varieties of instruments, and a growing collection of the finest phonograph records. He finds on file five hundred periodicals from this country and abroad. He is furnished with comfortable quarters, lighted and heated, in which to read and study. But all this is by no means enough to constitute a public library. In addition, he finds at his service a corps of expert librarians with catalogues, indexes, and a wealth of bibliographical apparatus to help him find the books or information for which he seeks. Bulletins and lists are distributed to keep him abreast of current publications and guide in the choice of older books. His children are helped to cultivate a wholesome taste for reading, and are taught in classes how to use the library, and the methods of gaining access to its resources. Not all of the people, it is true, avail themselves of these privileges, but an astonishingly large number do; and a not inconsiderable part of the cost of maintenance is directed towards bringing books to the attention of those who do not – especially children and newcomers to America – in the belief that they will thereby become happier individuals and more intelligent citizens. Besides the books taken home, so many volumes are consulted at the library buildings that no attempt is made to count them. Definite figures therefore cannot be given, but it seems safe to estimate the value of books used annually as averaging perhaps \$100 for each actual reader, and at least \$35 for each inhabitant. And this takes no account of the value of all the other services rendered. Such a return from an expenditure of 90¢ seems by no means a bad investment. A wider understanding of how much the community benefits from a library, and at what relatively small cost, will undoubtedly lead to larger support – public or private – and larger support is necessary if the system is to keep pace with the growth of the city.

The Memorial Square Branch was established ten years ago. The branches at Forest Park and Indian Orchard were started nearly twenty-five years ago. Since then the size of the city has more than doubled, and additional branches are needed at several points to serve the increasing population. The sadly overcrowded condition of the Forest Park Branch seems in a fair way to being remedied, for Col. A. B. Franklin, Mr. Henry R. Johnson, and other residents are raising funds to double its present capacity, and have already procured additional land on Belmont Avenue. While the library and branches are maintained by city appropriations, the city has never been called upon to expend money for land or buildings, all of which have been provided by private gifts. It is to be hoped that generous citizens will in due time be moved to provide additional branch buildings at points in the city where they will serve most advantageously; Winchester Square and upper Liberty Street especially need such facilities.

Last summer Mr. Fred Harlow Smith deeded to the Association his splendid collection of books, pamphlets, manuscripts, prints, and other graphic material relating to Springfield and western Massachusetts. The collection, which is to be known as the Fred Harlow Smith Collection, has not yet been placed in the library, as Mr. Smith is working on the arrangement and installation. His interest will not cease then, however, for he purposes to care for and round out the collection as the years pass.

A few months later came another important event – the union of the Connecticut Valley Historical Society with the City Library Association. The Historical Society preserves its corporate identity, with representatives of the library directors on its governing board, and will continue in its activities; while its valuable collections, which for lack of quarters had been widely scattered, are deposited with the Library Association. The union strengthens both organizations, and already there has been resulted increased interest in the Historical Society marked by an enlarging membership and the receipt of numerous important gifts. In time, a historical museum, it is hoped, will be added to the buildings in the City Library group.

An examination of the Fred Harlow Smith Collection, the printed and manuscript portion of the Historical Society's collections, and the collection of some twelve thousand items previously gathered by the library in our Springfield Room shows surprisingly little overlapping. As a result, the history of this vicinity will be recorded in this institution with a remarkable fullness which only a year ago would have seemed hardly possible.

Meantime, Dr. and Mrs. William Thornton Parker of Northampton have deeded to this Association, to come to it at their death, their houseful of relics, including Colonial furniture, silver, books, and innumerable other objects of historic value and interest.

The library is richer for a remarkable collection of nearly six hundred of the best war posters from enemy as well as allied countries, which have been presented by Mrs. Benjamin P. Bakewell. They are all mounted on cloth, and form an accession of permanent artistic and historic value.

To complete the year's record there was received a magnificent gift of etchings from the late Andrew B. Wallace comprising one hundred and twenty-four splendid examples of the work of the master etchers from Dürer to the present day. These have been installed in the art room of the library, and nearby is an excellent portrait of Mr. Wallace which Mrs. Wallace graciously had painted for the Association by Elizabeth Gowdy Baker. All of these noteworthy gifts and many others deserve much more extended notice than space permits in this report, but they were described at greater length in the public press when they were received.

The Association suffered a sad loss in the death of two sterling citizens - Andrew B. Wallace and A. Willard Damon. Mr. Wallace had served as a director since 1904, and Mr. Damon as an auditor since 1913. The Directors have attempted to express appreciation of their services in resolutions which will be printed with this report.

We miss, also, at this meeting, the faces of life members who had long been good friends of this Association, and took a deep interest in its work - among others, Rev. Philip S. Moxom, Mrs. Samuel Bowles, Mase S. Southworth, and Mrs. Henry M. Phillips, who was largely instrumental in establishing the Catharine L. Howard Memorial Library of Science in the Museum of Natural History.

The Art Museum and the Museum of Natural History have both had successful years, with a larger record of work accomplished than ever before in their history. Book cases have been installed and filled with art books in the new wing of the Art Museum, and the exhibits will follow later. An important scientific publication is perhaps the outstanding achievement of the Museum of Natural History. Further details of their work and of the library will be found in the reports of the librarian and curators.

In all departments there has been an increase of business, and while we trust the service rendered has been satisfactory to the community, we see on every hand inviting opportunities for enlarging and extending our work just as fast as the means at our disposal permit.

NATHAN D. BILL, *President.*

Report of the Librarian

One of the most satisfactory of recent developments is the increasing intimacy in the relations of the library with the many societies and organizations having similar interests. Besides the scientific societies connected with the Museum which often hold lectures and exhibitions in the library, other organizations such as the Art League, the Poetry Society, the Reading Circle of the Blind, the different social service groups, the Women's Civic Club, welfare and philanthropic organizations, university extension classes, schools, study clubs – in fact almost all the organizations in the city devoted to educational, philanthropic, civic, literary, and scientific pursuits – seem naturally turning to the library, holding meetings and lectures in its halls, borrowing deposits of books, procuring special lists, or finding assistance in forming their programs. For reference and study by such groups, more books than ever before – upwards of 2,600 volumes – have been set aside on special shelves in Rice Hall. The library halls have been used 175 times, and as all meetings are open and free, the public has enjoyed a profusion of notable lectures, addresses, conferences, and exhibitions. Thus, several of the foremost authorities in the country lectured on the artistic and historical phases of printing, paintings by the Boston Guild of Artists were exhibited, Mr. Raymond A. Bidwell's beautiful collection of Japanese prints was shown, two flower shows were held, historic relics, prints and manuscripts relating to Springfield were exhibited, and distinguished authors and scientists lectured. It is needless to enumerate all; the above give an idea of the many good things that have thus been made available to the public.

In addition, there has been a continuous series of exhibitions arranged by the library in the art room – wood block prints lent by Harold Haven Brown, pictures showing the history of magazine illustration, Chinese paintings by the younger school at Peking, superb photographs by Miss Clara E. Sipprell, and twenty other exhibitions – to say nothing of the splendid Wallace collection of etchings installed permanently. Perhaps because of its local interest, no display excited more attention than the silhouettes and miniatures lent by Springfield people, which followed the daguerreotype exhibition held a year previous. Altogether, there is seldom a time when a visit to the library will not repay, even if one is not seeking books.

Phonograph Records and Music Scores

The phonograph records installed last year have given great satisfaction. Seventy more, thirteen of which were gifts, have been added, making the total 238; and these have circulated 7,617 times. Many people, old and young, have thus become familiar with the best composers. The records have been borrowed an average of about forty times each. This means that most of the collection has been "out" all the time, and only the limited supply has prevented a greater circulation.

The large collection of vocal and instrumental scores which has been built up with the Grace Rumrill music fund now covers fairly adequately the field of the older and classical music. It was hoped when this point was reached that funds would be released for more of the modern compositions and other expensive special or less frequently used music. But the old collection, owing to the constant circulation, is beginning to wear out and require replacement, and part of the fund has been used to provide the records, so that there seems to be little margin for these special purchases. One resident, who desires to remain anonymous, learning of the need for the score and parts of one of César Franck's symphonies, which is to be performed by the Municipal Orchestra, generously sent a check for \$60 to make the purchase possible.

Accessions, Circulation and Extension Work

During the year, 22,937 volumes, of which 962 were gifts, were added, while 17,781 volumes were worn out or retired, leaving a net gain of but 5,156 volumes. Nearly half of the accessions went into the branch collections. The total stock now comprises 306,592 volumes.

All departments of the main library and the branches show an increase of patronage. The total circulation amounted to 1,257,093 volumes, which was 79,696 volumes, or about 7%, more than the preceding year. The class showing the largest increase comprised books on education, with a gain of 31%; both teachers and laymen have borrowed more of these books. Another class in which there is a marked increase of interest is religion. Writers in the periodicals are asking, "Is there to be a revival of religion?" Whatever the answer, there is no doubt that there is more reading of books on religion, the gain being 11% over the previous year, which in turn showed a large advance.

One very noticeable feature of the use of the library has been observed. Far more readers are leaving "reserves" – particularly for serious new books, many of which are borrowed before there is time to catalogue them. Also, there are more requests for the purchase of new books, often almost before they have come from the press. Apparently the public, through book reviews or other means, are keeping better informed than ever before regarding new and important publications.

More deposits of books have been maintained in factories and similar places than for many years past. This was made possible by the Young Women's Christian Association workers who have resumed this useful work, and by the efforts of a member of the staff who called on numerous managers, established several deposits where they had never been maintained before, and placed thirty library posters in various factories. As an experiment, this assistant has been visiting one of these factories at noon once a week to give out the books. The results, both in the quality and number of books circulated, show how advantageous it would be for library assistants to visit these little branches regularly. This is a very desirable form of extension work to undertake when it can be afforded.

Besides the 445 school rooms to which deposits are sent, there are 42 other places in the city – factories, large stores, institutions, fire stations, etc., where collections of library books are available.

Broadcasting and Other Methods of Reaching the Public

Various methods have been followed to let the public know what the library has to offer. Ten-minute radio talks about new books have been given through Station WBZ by the head of the circulating department each Monday night since November. These reviews have brought letters from all over the country as well as numberless personal requests for the books from Springfield people. The interest has seemed to increase with each succeeding month.

A large window on the ground floor of the library was fitted up as a display case where posters and collections of books on different subjects have been placed each week, revealing to passers-by the scope of the library's resources. The library also sent posters, lists, and collections of books from the different departments for the educational exhibition at the Gilbert and Barker Manufacturing Co., in which fifteen institutions providing education for employed men and women participated. Circulars or lists calling attention to special classes of books were sent to teachers, ministers, and others; library news was furnished to business concerns which publish house organs; and an offer was made to furnish printed lists of the Italian books to all the Italian societies that would distribute them to their members. And of course, the weekly book reviews have been continued in the newspapers.

Small collections of books gathered in the delivery room bearing on matters of current news have been very popular. The death of a noted man, a contemporaneous event here or abroad, or some magazine article such as William Lyon Phelps' selection of the fifteen best novels, James Harvey Robinson's choice of the seven greatest Americans, or the voting contest for the ten best books since 1900, aroused unflinching interest in the books displayed.

Numerous special lists were printed by the library or procured from other sources and distributed. "Books for Tired Eyes" listing good reading in large print made a wide appeal. A smaller leaflet described the notable treasures in the art room. "Some Books of Interest to Printers" was generously printed by the Loring-Axtell Co. for distribution at the lectures arranged by the Publicity Club. A little list called "Nonsense and Humor" is in constant request. A catalogue entitled "Knowing Your Goods" was compiled by the library and printed and distributed by the Chamber of Commerce to the salespeople of the city, who in the larger stores are to be given "credits" by their employers for studying up their subjects. To many readers a list like this is something of a revelation, for few realize how extensive is the service of a modern library in strictly utilitarian fields. Here in this twenty-page pamphlet, for example, are books on scores and scores of articles sold in Springfield, describing the raw materials, methods of manufacture, tests for adulteration, inferior workmanship, material, etc. Some of the subjects covered - to mention only a few - are: flavoring extracts, ink, leather, notions, carpets, brushes, furs, spices, shoes, hardware, mangles, perfumery, wall paper, sporting goods, awnings, lace, linoleum, glassware. Some of the other lists distributed were entitled "Art and Aesthetics", "Cheerful Books", "The Bookshelf for Boys", "Reading Course in Home

Planning, Interior Decoration, and Furniture". There were twenty in all. Special travel and biography numbers of the monthly Bulletin were issued, which proved very popular and the supply was quickly exhausted.

In studying the circulation statistics it is surprising to find how commonly an increase in any class is traceable to some activity of the library in the way of displays and exhibitions, special lists, circulars and other advertising, or the purchase of an unusual number of books on some subject. The last, however, usually means a pre-existing interest on the part of the public.

Twenty-Five Years of the Training Class

For just a quarter of a century now the library has conducted a training class for persons wishing to fit themselves for library work. Usually ten members are chosen by examination from nearly three times that number of candidates, and they serve for nine and one-half months, much as members of the staff, but neither paying tuition nor receiving compensation for their services. Class instruction is given each morning in cataloging, bibliography, reference work, English literature, European history, etc., but great emphasis is placed on supervised work under the chiefs of the different departments, a month at a time. The members are largely from the New England states, but some have come from as far west as Nebraska, as far south as Florida, and as far north as Canada. One hundred and ninety-nine persons have been in these classes, and from them the library staff has been largely recruited, while the others find no difficulty in securing openings elsewhere. Indeed, more of these persons could easily be placed, and many have risen to positions of importance.

General

Probably the most urgent need in the library system is an addition to the Forest Park Branch. It is doubtful whether there exists anywhere else a library in a building of that size and cost which is so largely used, and the patronage is steadily increasing.

The children's department, the reference room, the art department, the three branch libraries call for no special comment. They have all been alert for opportunity, conducting their work on much the same lines as the previous year, but each on a somewhat larger scale. Indeed, while the new or unusual activities receive notice in this report, the daily routine work of building up and cataloging a well chosen and comprehensive collection of books, of maintaining an inviting atmosphere for readers, and of ministering to their needs by bringing the right books or information to the right readers, offers small opportunity for description in a brief report, yet it constitutes the backbone of library work. In all of this work the members of the staff have been eager and devoted, and their united and harmonious efforts have made possible whatever measure of accomplishment the year records.

Respectfully submitted,

HILLER C. WELLMAN, *Librarian.*

Statistics of Accessions for 1923-1924

	Volumes	Volumes
Added by purchase, Central Library.....	12,099	
Added by purchase, Branches.....	9,876	
Added by gift.....	962	
Total gain.....		22,937
Withdrawn.....		17,781
Net gain.....		5,156
In the Library, May 1, 1923.....		301,436
In the Library, May 1, 1924.....		306,592

Statistics of Circulation 1923-1924

CITY LIBRARY	ADULT Volumes	JUVENILE Volumes	Volumes
Fiction.....	261,705	40,454	
Periodicals.....	8,625	1,863	
General Works.....	406	556	
Philosophy.....	4,706	250	
Religion.....	4,545	1,387	
Sociology.....	7,481	1,729	
Education.....	2,728	30	
Philology.....	1,663	87	
Natural Science.....	3,806	10,503	
Medicine.....	3,391	165	
Useful Arts.....	11,720	2,124	
Fine Arts.....	8,259	450	
Music.....	12,092	94	
Amusements.....	3,482	1,431	
Literature.....	17,232	8,758	
Foreign Literature.....	12,479	141	
History.....	6,688	7,971	
Biography.....	7,332	3,258	
Geography.....	6,730	9,716	
Myths.....		15,798	
Juvenile (jj).....		32,688	
Total circulation from City Library.....	385,070	139,453	524,523
Forest Park Branch.....			238,962
Indian Orchard Branch.....			66,287
Memorial Square Branch.....			212,828
Hospital Branch.....			412
Estimated circulation at schools and other agencies.....			214,081
Total circulation of books.....			1,257,093
Pictures circulated.....			126,472
Phonograph records circulated.....			7,617
Deposited in 445 school rooms:			
Supplied for one-half school year.....			28,041
Renewals and transfers.....			15,854
			43,895

Donors of Books, Pamphlets, and other Articles

	Volumes	Pamphlets	Miscellaneous
Allen, Beatrice			28 postcards
American Brotherhood of Free Reading for the Blind	3		
American Chemical Society	25		
American Legion; Mass. Dept.			1 leaflet; 25 folders
Ames, Col. T. L.	21	22	1 chart
Amherst College		1	
Anonymous			\$60 for music
Bacon, Mrs. F. W.	1		
Bacon, Dr. Theodore			Medical magazines
Bagg, Ernest Newton		3	
Baker, A. G.	1		
Baldwin, Alden W.			23 magazines
Bates, Ernest G.	3		
Baxter, Garrett	1		
Beckwith, Walter M.	1		
Bennett, Mrs. A. G.	2		
Bigelow, W. W.		31	
Bill, Nathan D.	15		48 magazines
Biro, Mrs. Albert	14		
Bliss, E. F.	1	12	
Bliss, Mrs. J. Eliot			1 leaflet
Bourdillon, Agnes	6		
Brewer, Lucy P.	1		
Brightwood Furniture Co.	3		
Brown, Mrs. Julius W.			File of "The Friend"
Buffington, Howard			1 magazine 2 Victrola records
Burdett, Charles E.	6		
Burrage, Charles D.		1	
Calder, Mrs. John W.		1	
Carter, E. K.		1	
Chandler, John H.			Magazines
Cheney, Frances E.			5 pictures
Childs, Fanny R.	1	1	Music
Clark, Robert A.	1		
Clune, Margaret	1		
Cobb, Albert W.			1 leaflet
Coblitz, Stanton A.	1		
Cole, George W.		1	
Conery, James	2		
Conner, William, Jr.	11		
Coykendall, Frederick	1		
Crocker, Douglas	1		
Croftut, Mrs. W. A.	2		
Cruikshank, Alfred B.	1		
Curtis, Eleanor	3		
Danforth, Anna S.			19 magazines 6 pictures
Davis, Charles Henry		1	
Dearden, C. W.		1	
Delphian Society			16 postcards
Dodge, Nellie E.			1 magazine
Doggett, Mrs. L. L.			Antique silver cross
Donham, H. W.	1		
Doolittle, Charles H.	1		
Dunlap, Mrs. C. E.		3	
Ellis, Ralph W., Jr.			1 manuscript report
Ellison, Agnes S.	5		
Eustis, Florence and Isobel			41 pictures, 6 daguerreotypes
Finch, Mrs. A. W.			Bust of Longfellow
Forbes, Mrs. Frank P.			1 Columbia record
Ford, C. M.			Paper slips
Fowler, Alfred	1	1	
Fulton, William Edwards	1		
Gardner, George C.			55 pictures 1 bookplate
Geddes, John H.		2	
Gibbs, Dr. Howard A.		1	
Gilbert, A. W.		1	Maps
Gordon, Dr. Benjamin	1		
Gordon, Mrs. Gurdon W.	1		
Grant, Mary Frances			24 magazines
Green, S. M.	8	8	
Hadley, R.	2		
Hadley, Mrs. R.			19 bulletins
Hart, William S.	1		

	Volumes	Pamphlets	Miscellaneous
Harvey, David L.	6		
Hendrick, Charles J.	1		
Hill, Edwin C.	1		
Hill, James L.	1		
Hill, Mrs. W. C.		1	1 picture
Hobart, Frances	1		
Hoffman, Mrs. Etta	18		
Holmes, Franklin T.			1 bookplate
Hooker, Mrs. Richard	55		28 magazines
Hunting, H. R. Co.	4	31	
Hyde, Henry C.	1		
Hyde, Thomas W.	2	2	3 programs
Ingersoll, James C.		188	2 charts, 11 large photographs
Jamieson, Mrs. J. W.			20 magazines
Jaynes, Irene			Magazines
Johnson, Anna Marilla		4	876 pictures
Johnson, Walter E.	5		
Jay, Mrs.	2		
Kaufert, Caroline C.			12 magazines
Kemater, Charles W.	6		
Keyes, Mrs. H. S.			Magazines
Kirkham, Dr. William B.	2		
Leonard, Clifford S.			Magazines
Leonard, Edwin	2		
Levinger, Rabbi Lee J.	2		
Lewis, Mrs. Seth A.	1		
Lissie, Mrs. Florence			Magazines
Lochridge, E. E.		1	
Lord, Barbara		1	51 pictures
Luckey, Rev. Leonard W. A.	1		
Lyman, Mrs. Moses	3		
McCormick, L. Hamilton	1		
McGann, Rev. J. M.	8		45 magazines
McGann, Marion D.	33		
McIntosh, R. C.	1		
McKay, Claude	1		
Mandell, George		40	
Marr, Harriet	12		
Metcalf, Mrs. Lulu	2		
Miller, Grace	3		
Milton Bradley Co.			30 plates
Miner, George W.			6 magazines
Minton, Telfair Marriott		1	
Moore, C. Bennett	2		
Myrick, Herbert	2	1	1 map, 2 magazines
Myrick, Mrs. Herbert	3		5 magazines, 7 newspapers
North, F. E.			31 pictures
Page, Kirby	1		
Palmer, William Kimberly		4	
Parker, Dr. William Thornton	6	3	12 pictures
Peuss, Mrs. F. C.	1	5	
Pierce, Frances M.		2	
Price & Lee Co.	10		
Quinn, Pearle			26 magazines
Radcliffe, Mrs. James A.	1		
Richards, Mrs. W. L.			36 magazines
Ricker, A. L.	3		
Robertson, Mrs. J. W.			Magazines
Robinson, Carroll W.			66 pictures
Rogers, Julia C.			16 magazines
Ross, Margaret M.			Magazines
Rowley, Gordon C.	1		
Rudy, William			8 pictures
Sargent, C. S.		1	
Sargent, Cordelia C.			11 magazines, 1 picture
Saunders, Mrs. S. A.			27 maps
Seybolt, Mrs. F. E.	1		
Shepard, Alice		1	175 postcards
Skeel, Mrs. Roswell, Jr.	1		
Smith, Alexander N.			15 autograph letters
Smith, Ellen M.	2		
Smith, Mrs. Frank E.	2		
Smith, Mrs. Mary	10		
Smith, Nellie G.	1		
Stone, F. E.		1	
Stone, William C.	3		
Storer, Mrs. Bellamy	1		
Sturtevant, Harold W.	16		
Swetland, E. J.	4		

	Volumes	Pamphlets	Miscellaneous
Taber-Prang Art Co.			5 pictures
Tanner, Virginia		1	
Tate, Dale S.	57		
Thompson, Mrs. Robert	1		
Tryon, Florence	3		
Tufts, Alice B.			3 drawings
United Electric Light Co.	1		
Vibbert, M. E.	1		
Washburn, Dorothy	3		
Whiston, William C.	2		
Whiting, Mrs. Charles G.	1		
Whittemore, B. A.	1		
Whitten, Robert		1	
Williams, Wayne C.	1		
Williams-Lyouns, H. F.			37 engravings
Winchester, Helen R.		3	

Report of the Art Museum

When the annual meeting was held here a year ago, we fully expected that this room would be filled with exhibits before this time; but numerous delays in connection with the building have occurred, consequently we have just commenced the installation of the new possessions. Six new mahogany cases have been furnished by the Association, also the new oak bookcases for the library, and now when the floor is finished the arrangement of the cases can be completed.

The fact that the extension was delayed does not mean that nothing has been accomplished this year. One of the interesting features is the healthy growth in the educational work, and the increasing appreciation of the opportunity offered by the museum. The antiquated idea of a museum as just a resting place for art objects has passed away, and today the art museum is an integral part in the educational system of the city; and when as fortunately placed as ours, in connection with schools, Library, and Museum of Natural History, correlating as we do with them, its value is inestimable. The Art Museum teaches through seeing, and aids in the cultivation of good taste. Good taste is now recognized as a distinct asset in the home, in business, and to the entire community. The beautiful examples of human handicraft in which the Museum abounds, together with the fine books on design which have now been made accessible in our new rooms, place us in a position to be of great service to the citizens.

The public and private schools of the city, also those of surrounding towns, have come to value the opportunities offered by the museum and have made constant use of it. More students of design than ever before have availed themselves of the privileges offered. One day we received twelve classes in design numbering more than two hundred pupils. Many of the most interesting designs in the annual exhibition of the work of the high schools held in Central High School received their inspiration from objects in the Art Museum. Many industries are dependent upon art training if their products are to equal or excel those designed by foreigners, and it is in this field that we can be of inestimable value.

The different educational and social clubs of the city have been received and talks explaining the collection given. The Saturday afternoon drawing class has been continued, giving to pupils an opportunity which they could not otherwise have had to draw from objects in the Museum under the direction of a teacher. Examples of their work can be seen on the screens in the Hall of Sculpture. The issuing of passes to children, to allow them to visit us without being accompanied by an adult, has been continued with gratifying results. Many of the children come again and again, often bringing their comrades or parents and eagerly repeating the information which they have received. This year we have given very material aid to the Springfield Art League and also furnished meeting rooms for the council of the League.

Over one hundred additions to the collection have already been made by Mrs. Smith, but I will not take time here to enumerate them. That this collection, covering a broad field of art in many branches, may be of the utmost use to this community was the earnest desire of Mr. Smith - for this he worked and spent his money. Mrs. Smith is in full accord with his idea, and the entire staff is here for service.

Respectfully submitted,

ELEANOR A. WADE, *Curator.*

Report of the Museum of Natural History

In this, its 65th year, the Museum of Natural History reviews steady progress from a caseful of relics to the present educational institution and its excellent collections.

Gifts marked the beginning of the museum both in collections and service; continued giving has resulted in an important representation of local natural history, housed in a substantial building. The forward look brings assurance that the increasing need of additions to that building and its equipment will be met by the same generous interest.

Returns that the museum is making are indicated by the following record of what has been accomplished during the past year:

Catalogue of Springfield Plants

The publication of a third scientific bulletin is perhaps the most noteworthy event. Bulletin No. 1, *Early Stages of the Carabidae* by Dr. George Dimmock and Frederick Knab, and Bulletin No. 2, *Insect Galls of Springfield and Vicinity* by Miss Fannie A. Stebbins, have received acknowledgment as worthy scientific contributions. Bulletin No. 3, by Luman Andrews and a Committee of the Botanical Society, on *Flowering Plants and Ferns of Springfield, Massachusetts*, is just issued and, it is hoped, may receive like acknowledgment.

It is a volume of 221 pages listing more than 1000 plants growing without cultivation within the city boundaries. These are classified as fern plants and seed plants, sub-divided into families and genera, and finally species and varieties. Scientific names are followed by common names which have been made a feature of the bulletins and its elaborate index. Frequency of occurrence is stated and habitat described briefly; then the Springfield stations are recorded. An indexed map given by the Springfield Botanical Society is another feature, and ten plates illustrate some of Springfield's interesting trees. Species upon which this catalogue is based are a part of the herbarium of approximately 15,000 plants given to the museum by the author, the late Luman Andrews of Southington, Connecticut. This bulletin by no means includes all the plants that can be found in Springfield. Large areas are still to be studied and the museum invites additions to this preliminary list.

The publication of these important records has been made possible by Mr. Robert O. Morris through whose good offices part of the Horace Smith and William A. Birnie funds have been made available for the purpose.

Lectures and Credit Courses

Lecture courses have been especially gratifying. The total attendance at twenty lectures was 2,303 persons, an average of 115 persons at each lecture.

Two of the courses gave opportunity to work for academic credit, certificates for which were issued to thirty-six teachers at the conclusion of the series.

Prof. George H. Barton, Boston's eminent geologist discussed *The Origin of Our Natural Scenery*.

Prof. Warren K. Moorehead told of his study of *New England Indian Life*.

Dr. George E. Dawson in seven lectures considered *Measurement of Intelligence* and drew notable audiences.

The one lecture for which Dr. William B. Kirkham could be secured this year dealt with *The Present Status of Evolution*.

Miss Fannie A. Stebbins conducted a series of well attended table talks on *Physiological Botany*.

Mr. Arthur Wilson and Mr. Frederick Scott lectured under the joint auspices of the Museum and The Allen Bird Club.

Story Telling

The children have had their lecture season also. On a dozen winter Saturdays Miss Dorothea Clark told stories about animals to 780 very much interested boys and girls.

Scouts

One hundred and thirty scouts from the city and adjoining towns have used museum collections to aid them in securing merit badges, and members of the museum staff have served as Scout examiners.

Teachers' Meetings

Three hundred and fifty-three teachers have attended meetings called by the supervisor of nature study who directed attention to museum facilities that were later used by teachers in nature study class work.

Classes

One thousand one hundred and eighty pupils have come to the museum with their teachers for general observation or for more definite study of a particular subject. It is estimated that an equal number have come without their teachers but for a special purpose.

Affiliated Societies

Seven hundred and thirty-four persons have attended the sessions of various other organizations, and, added to these meetings of scouts, classes, teachers and pupils, of which there have been 144, bringing together 5,479 persons, there has been the regular opening to the public daily and Sunday throughout the year.

Contests for Prizes

One hundred and twenty-eight boys and girls competed for the Robert O. Morris prizes for correct recognition of birds. Ten girls and fourteen boys were awarded amounts varying from fifty cents to three dollars, and examinations showed a greatly increased acquaintance with birds.

Thirty-three of the forty-seven boys and girls who tried for tree study prizes received awards. These also were the gift of Mr. Morris who generously provided a total of fifty dollars for the two contests.

Naming the Trees

The work of identifying and labeling city trees is progressing, Mr. Morris supplying funds for continuing this work. One hundred and fifty-five trees now bear the neat metal markers, and with the season opening the work will be resumed.

Gifts

Each year brings additions that as single objects or collections enrich various departments. The past year has been no exception to the rule, and to persons from whom such contributions have been received the museum makes most grateful acknowledgment for much appreciated gifts.

The Catharine L. Howard Library

In this busy year with its demands for information, the resources of the Howard Library have been especially appreciated. Through books it makes its intellectual contribution. Through the charm of its setting it supplies an atmosphere without which the museum would lack a certain appeal. Through their interest and approval its members have built strong friendships with the museum staff. Thus the loss of two of its officers is keenly felt.

Their library is a memorial to a beloved teacher, established "in gratitude for the beauty of her character and the inspiration of her life". In gratitude for the beauty of their characters and the inspiration of their lives, a memory of Mrs. Phillips and Mrs. Bowles will abide with us.

Respectfully submitted,

GRACE P. JOHNSON, *Director.*

Treasurer's Report

FOR THE FISCAL YEAR ENDING APRIL 30, 1924

RECEIPTS

Balance brought forward from year 1922-1923.....	\$169.54	
Appropriation from City of Springfield.....	150,499.98	
Dog tax from City of Springfield.....	7,404.02	
Alice W. Adams fund.....	65.00	
Aston fund.....	50.00	
Elizabeth D. Rice Bianciardi fund.....	825.00	
Fanny Hazard Bond fund.....	200.00	
Samuel and Rhoda Colton Booth fund.....	3,190.32	
John Bryant fund.....	300.00	
Chester W. Chapin fund.....	500.00	
Charles A. Emery fund.....	385.00	
O. H. Greenleaf fund.....	300.00	
Augustus G. Hazard fund.....	425.00	
J. Searle and Julia S. Hurlbut fund.....	50.00	
The King fund.....	150.00	
Charles M. Kirkham fund.....	220.00	
Charles S. Marsh fund.....	250.00	
Charles Merriam fund.....	385.00	
Sarah J. Moore fund.....	320.00	
Caroline L. Rice fund.....	250.00	
Grace Rumrill music fund.....	560.00	
Joseph L. and Margaret H. Shipley fund.....	130.00	
George W. Tapley fund.....	60.00	
James M. Thompson fund.....	250.00	
Dr. William Tully fund.....	40.00	
David A. Wells fund.....	5,595.00	
From Catherine L. Howard Library Association.....	130.26	
Interest on bank balances.....	422.43	
Fees for overdetection of books.....	8,608.43	
Net receipts from duplicate collection.....	942.69	
Non-resident cards.....	258.50	
Anonymous gift for music.....	60.00	
Miscellaneous receipts.....	867.43	
	<hr/>	
Total receipts.....		\$183,863.60

EXPENDITURES

GENERAL EXPENSES

Engineers, janitors, and watchman.....	\$6,012.10	
Fuel.....	3,469.54	
Insurance, repairs, care of grounds, and miscellany.....	3,947.35	
Refund of money borrowed from Porter fund.....	1,000.00	
Transferred to Stack fund.....	4,000.00	
Interest on mortgage less net rents.....	3,115.12	
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		\$21,544.11

LIBRARY EXPENSES

Salaries.....	\$61,722.71	
Pages.....	2,696.92	
Sunday and holiday service.....	504.18	
Cleaning.....	2,728.00	

Books:

General fund.....	\$ 5,316.66	
Aston fund.....	50.00	
Bianciardi fund.....	825.00	
Booth fund.....	750.00	
Bryant fund.....	300.00	
Chapin fund.....	500.00	
Hazard fund.....	425.00	
Hurlbut fund.....	50.00	
King fund.....	150.00	
Kirkham fund.....	220.00	
Merriam fund.....	385.00	
Rice fund.....	250.00	
Rumrill fund.....	560.00	
Shipley fund.....	130.00	
Thompson fund.....	250.00	
Tully fund.....	40.00	
Wells fund.....	<u>2,797.50</u>	12,999.16
Periodicals.....		1,468.40
Binding.....		5,661.74
Printing.....		1,635.15
Stationery and supplies.....		2,255.10
Furniture and shelving.....		935.77
Repairs.....		1,679.75
Light and power.....		2,151.72
Water.....		89.15
Postage.....		772.49
Express and freight.....		300.68
Telephone.....		299.37
Miscellany.....		480.41
		<hr/>
		\$98,380.70

FOREST PARK BRANCH

Salaries and wages.....	\$14,071.32
Books, periodicals, and binding.....	5,823.08
Fuel, light, telephone, and miscellany.....	1,718.26
Shelving and cases.....	382.45
	<hr/>
	\$21,995.11

INDIAN ORCHARD BRANCH

Salaries and wages.....	\$4,919.66
Books, periodicals, and binding.....	1,887.83
Fuel, light, telephone, and miscellany.....	908.30
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	\$7,715.79

MEMORIAL SQUARE BRANCH

Salaries.....	\$11,209.29
Books, periodicals, and binding.....	6,523.68
Repairs and furniture.....	528.32
Fuel, light, telephone, and miscellany.....	1,692.78
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	\$19,954.07

ART MUSEUM

Salaries.....	\$5,812.76
Hall of Sculpture, salaries.....	492.80
Cleaning, light, repairs, and miscellany.....	2,686.28
Cases and catalogue.....	1,235.00
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	\$10,226.84

TREASURER'S REPORT

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MUSEUM OF NATURAL HISTORY

Salaries and wages.....	\$2,651.95
Books for Catharine L. Howard Library.....	184.99
Light, telephone, and miscellany.....	322.72
Repairs.....	341.43
Lectures.....	192.63
	\$3,693.72
Total expenditures.....	\$183,510.34
Balance.....	353.26
	\$183,863.60

FUND FOR SCIENCE MUSEUM PUBLICATIONS

Balance May 1, 1923.....	\$16.66
Interest on two-fifths of \$1,000.00 St. Louis and San Francisco 4's....	16.66
	\$33.32
Balance April 30, 1924.....	\$33.32

SHERMAN D. PORTER FUND

Balance May 1, 1923.....		\$1,853.29
Interest on \$1,000.00 Adams Express 4's.....	\$40.00	
Interest on \$3,000.00 Baltimore and Ohio 5's.....	150.00	
Interest on \$3,000.00 Chicago, Rock Island and Pacific 4's ($\frac{1}{2}$ year).....	60.00	
Interest on \$1,000.00 New York Central 6's.....	60.00	
Interest on \$2,000.00 Sinclair Oil 7's.....	140.00	
Dividends on 20 shares Pacific Oil Stock.....	40.00	
Dividends on 20 shares Southern Pacific stock.....	120.00	
Interest on bank balance.....	23.07	
Refunded.....	1,000.00	1,633.07
		\$3,486.36
Purchase of \$3,000.00 Chicago, Rock Island and Pacific 4's.....		2,231.50
		\$1,254.86
Balance April 30, 1924.....		\$1,254.86

DENTAL LIBRARY FUND

Balance May 1, 1923.....		\$23.34
Interest on three-fifths of \$1,000.00 St. Louis and San Francisco 4's..		23.34
		\$46.68
Balance April 30, 1924.....		\$46.68

CHARLES M. KIRKHAM FUND FOR BEAUTIFYING GROUNDS

Balance May 1, 1923.....		\$824.48
Interest on \$3,000.00 Southern Pacific 4's.....	\$120.00	
Interest on \$2,500.00 American Telephone and Tele- graph 4's.....	100.00	
Interest on \$1,000.00 Baltimore and Ohio 5's.....	50.00	
Interest on \$1,000.00 Remington Arms Company, 6's ($\frac{1}{2}$ year).....	30.00	
Interest on bank balance.....	9.78	309.78
		\$1,134.26
Purchase of \$1,000.00 Remington Arms Company 6's.....		940.00
		\$194.26
Balance April 30, 1924.....		\$194.26

CITY LIBRARY ASSOCIATION

WILLIAM A. BIRNIE FUND

Balance May 1, 1923.....		\$35.00
Interest on one-half of \$1,000.00 Sinclair Oil 7's.....		35.00
		<hr/>
Balance April 30, 1924.....		\$70.00

SAMUEL AND RHODA COLTON BOOTH FUND

Balance May 1, 1923.....		\$89.08
Cash received.....	\$41,771.40	
Cash difference on \$3,000.00 Goodyear Tire and Rubber 8's called and new bonds purchased.....	124.00	
Transferred from General fund.....	57.18	\$41,952.58
		<hr/>
		\$42,041.66

Less:

Amount used for purchase of the following:		
\$10,000.00 Remington Arms 6's.....	9,688.33	
\$10,000.00 United Drug 8's.....	11,347.89	
\$8,000.00 Adams Express 4's.....	6,480.73	
\$14,000.00 American Smelting and Refining 6's....	14,402.66	41,919.61
		<hr/>
Balance April 30, 1924.....		\$122.05

CHARLES EMERY FUND

Cash received.....	\$13,153.45	
Interest on bank balance.....	113.45	13,266.90
		<hr/>

Less:

Purchase of \$14,000 Rochester Gas and Electric 5½'s.....		13,266.90
Balance April 30, 1924.....		None

MISCELLANEOUS ACCOUNT

Balance May 1, 1923.....		\$329.99
Received from Springfield Institution for Savings on mortgage of \$100,000.00.....	\$8,000.00	
Sale of Taylor collection of old china.....	2,700.00	
Interest on bank balance.....	21.16	10,721.16
		<hr/>

Less:

Payments on construction of Art Museum wing.....	\$4,679.37	
Show cases for Art Museum wing.....	3,564.00	8,243.37
		<hr/>
Balance April 30, 1924.....		\$2,807.78

STACK FUND

From gifts and duplicate and sale material.....		\$1,480.21
Cash received from General Fund.....		4,000.00
Interest on bank balance.....		2.79
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Balance April 30, 1924.....		\$5,483.00

THE LIBRARY OF THE

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UNIVERSITY OF ILLINOIS

UNIVERSITY OF ILLINOIS-URBANA



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