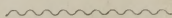
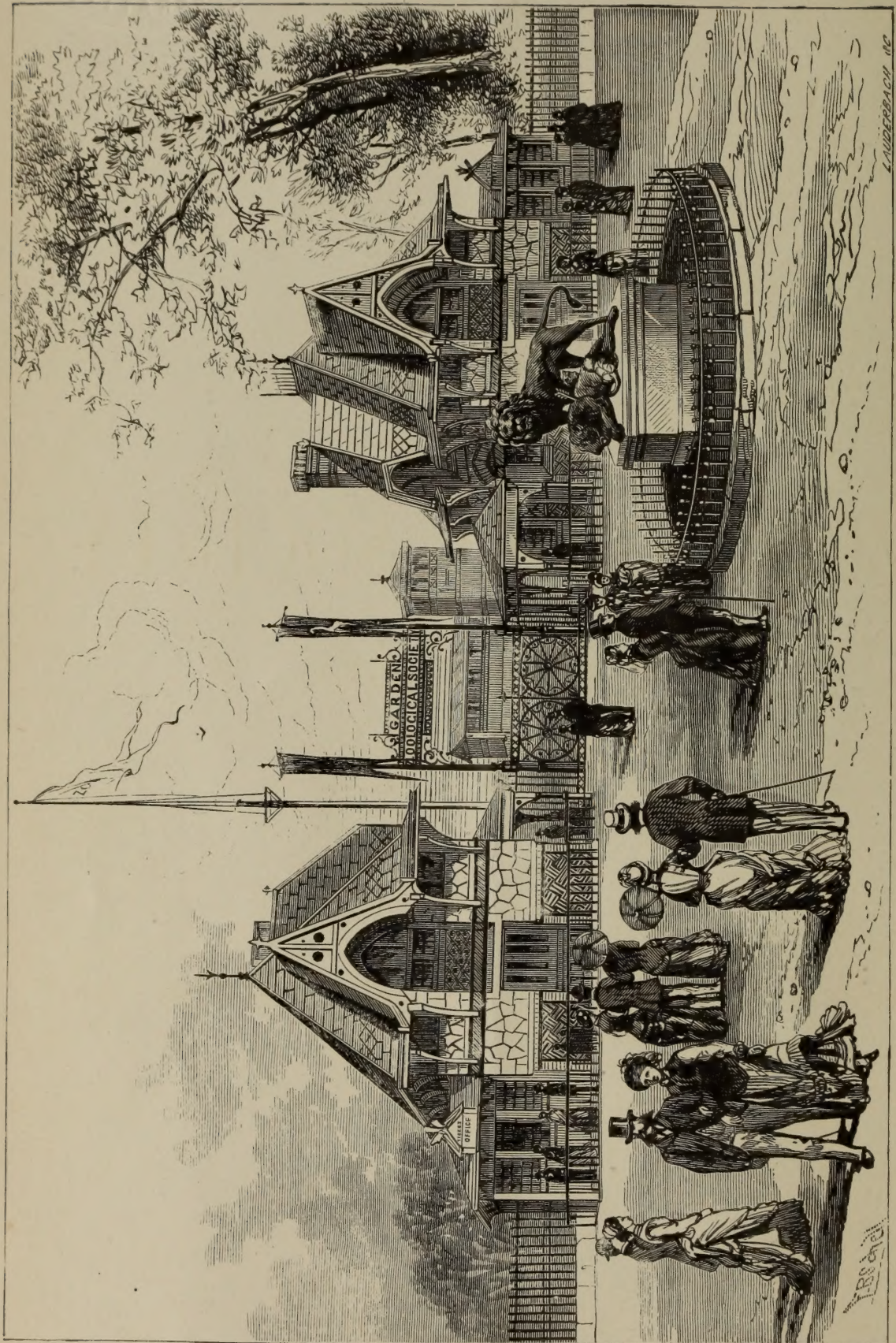


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No. 6110



GIRARD AVENUE ENTRANCE.

THE
SEVENTH ANNUAL REPORT
OF THE
BOARD OF DIRECTORS
OF THE
ZOOLOGICAL SOCIETY
OF PHILADELPHIA.

(Incorporated March 21st, 1859.)

READ AT THE ANNUAL MEETING OF THE MEMBERS AND LOAN-
HOLDERS OF THE SOCIETY,

APRIL 24th, 1879.

PHILADELPHIA:

1879.

THE
ZOOLOGICAL SOCIETY OF PHILADELPHIA

OFFICE, FAIRMOUNT PARK.

OFFICERS FOR THE YEAR ENDING APRIL 24th, 1879, 80

PRESIDENT,

WILLIAM S. VAUX.

VICE-PRESIDENTS :

GEORGE W. CHILDS, | HENRY LEWIS.

CORRESPONDING SECRETARY,

JOHN L. LECONTE, M. D.

RECORDING SECRETARY,

JOHN SAMUEL.

TREASURER,

EDWARD BIDDLE.

DIRECTORS :

| | |
|-----------------------|---------------------|
| WILLIAM CAMAC, M. D., | S. FISHER CORLIES, |
| FREDERICK GRAFF, | THEO. L. HARRISON, |
| CHARLES W. TROTTER, | HENRY C. GIBSON, |
| J. VAUGHAN MERRICK, | ISAAC J. WISTAR, |
| JOHN WAGNER, | WILLIAM HACKER, |
| WILLIAM H. MERRICK, | PROF. JOSEPH LEIDY. |

ACTUARY,

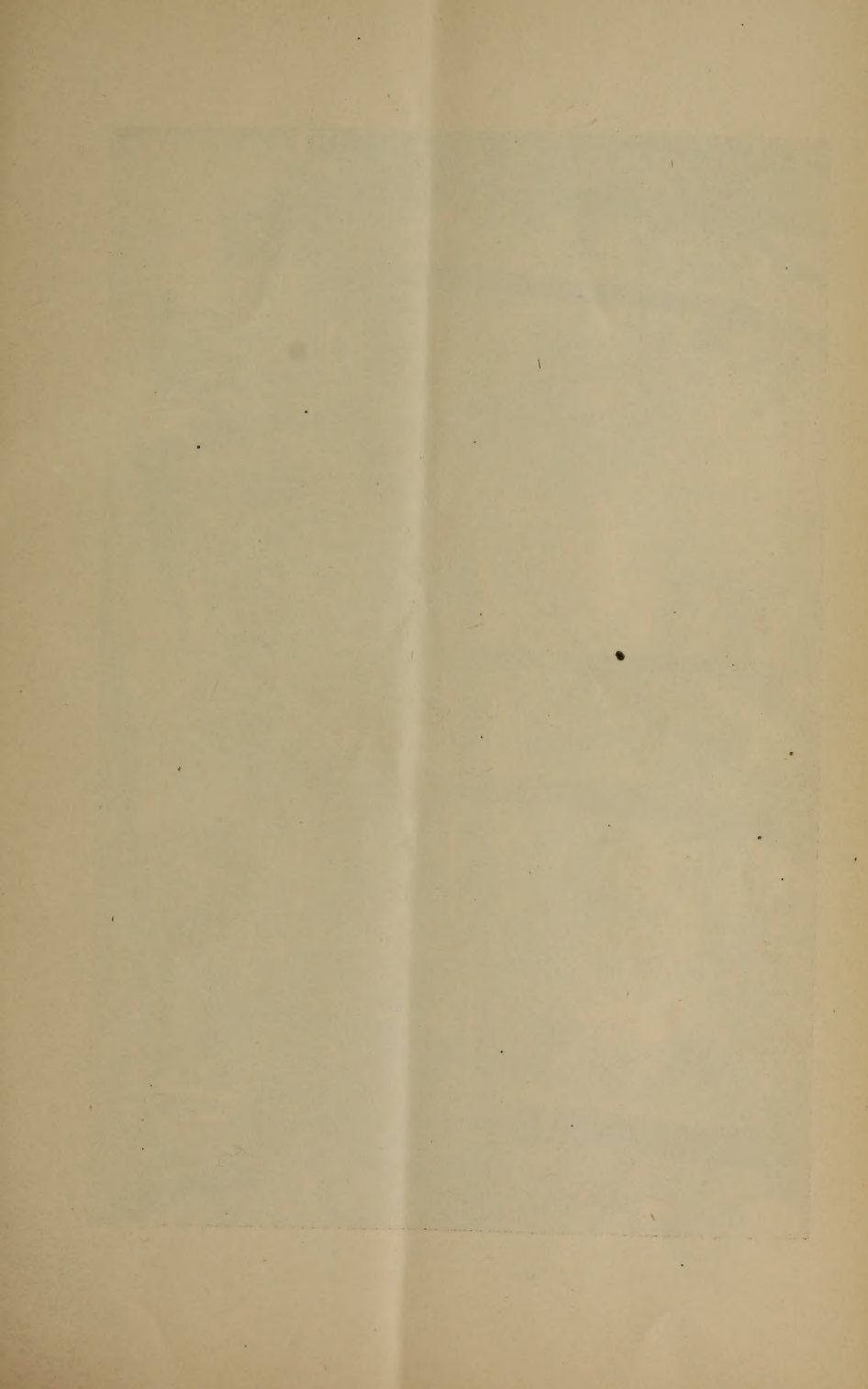
CHARLES L. JEFFERSON.

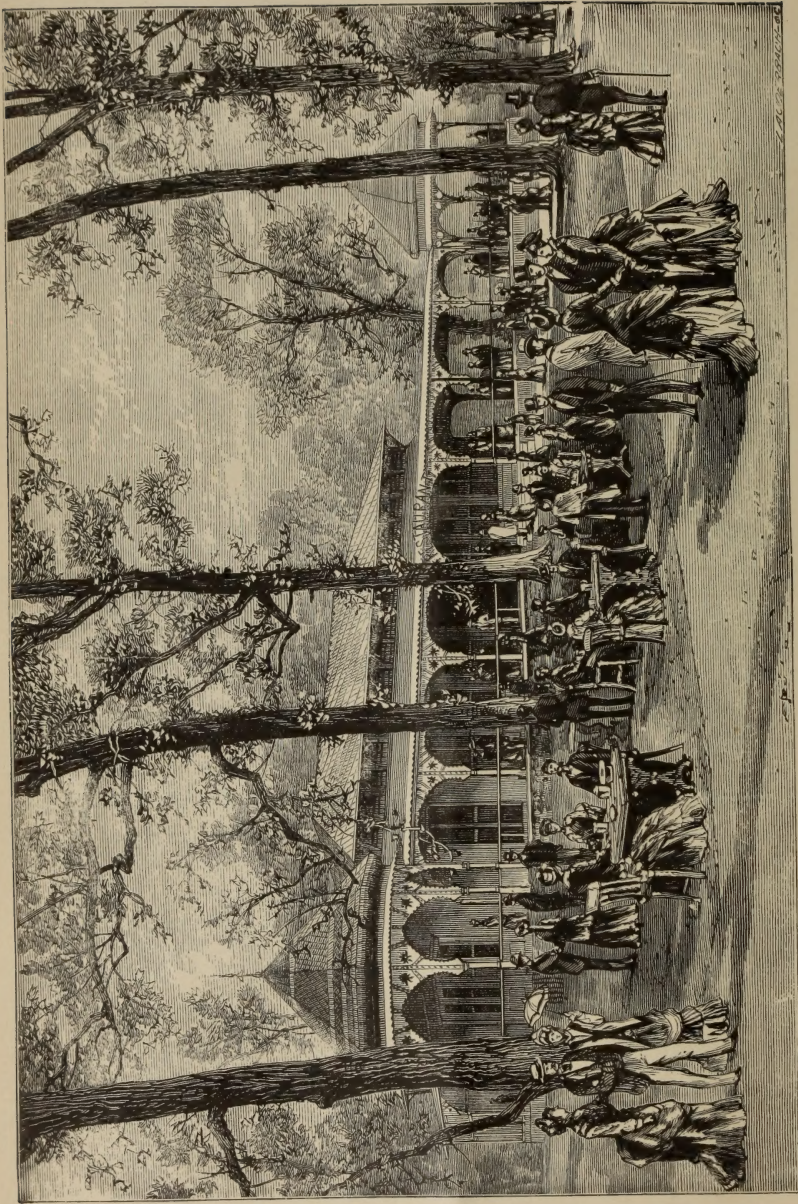
SUPERINTENDENT OF THE GARDEN,

ARTHUR E. BROWN.

SOLICITORS :

S. WAGNER, JR., | W. W. MONTGOMERY.





REPORT

OF THE

BOARD OF DIRECTORS.

PHILADELPHIA, April 24th, 1879.

THE Board of Directors of the Zoological Society of Philadelphia submit to the members and loan-certificate holders, this, their Seventh Annual Report of the business and operations of the Society, from 1st of March, 1878, to 1st of March, 1879.

MEMBERS.

The number of members of the Society on the 1st of March, 1879, was—

| | |
|----------------------------------|-----|
| Annual members, | 731 |
| Life members, | 188 |
| Corresponding members, | 9 |
| Honorary members, | 14 |

Total members (exclusive of loan-holders), . 942

Decrease from preceding year of nineteen Annual Members, and a loss, by death, of three Honorary Members, viz., Prof. Joseph Henry, Thomas H. Powers, and Brigham Young.

The number of loan-holders is four hundred and ninety-three.

VISITORS.

The present year presents a marked increase in the number of visitors. The total excess over the attendance of last year, being seventy-six thousand nine hundred and sixty-six, and the average daily increase being two hundred and three. This year, freed as well from the excitement of novelty attendant on our first two years, and that of the Centennial Exhibition in 1876, as from the extreme depression attending 1877-8, is perhaps the first year since the opening of the Garden which presents a fair estimate on which the ordinary number of visitors may be predicted. In this light, the number of its visitors is gratifying ;

among them were twenty-seven thousand seven hundred and forty miners and employés of the Reading Railroad, from Schuylkill and the adjoining counties, who, by the kindness of the Road and a liberal arrangement on the part of our Society, were enabled to partake of its pleasures without any cost to themselves.

The following is a report, in detail, of gate receipts for the year:—

| | |
|--|---------|
| Adults (paying twenty-five cents at gates), . . . | 174,153 |
| Children (" ten " "), . . . | 47,909 |
| Members (including life and annual members, loan-holders' annual, and complimentary annual tickets), . . . | 7,920 |
| Loan-holders' single tickets, . . . | 15,555 |
| Free admissions (charitable institutions, donors' tickets, &c.), . . . | 2,171 |
| Package tickets, . . . | 2,929 |
| Excursion tickets, . . . | 30,102 |
| | 280,739 |

Monthly Record of Visitors for 1878-79, with corresponding account for 1877-78.

| MONTH. | 1877-78. | 1878-79. | COMPARISON. |
|------------------|----------|----------|------------------------|
| March, . . . | 5,592 | 11,221 | Increase, . . . 5,629 |
| April, . . . | 14,756 | 18,577 | " . . . 3,821 |
| May, . . . | 21,296 | 50,380 | " . . . 29,084 |
| June, . . . | 19,498 | 31,109 | " . . . 11,611 |
| July, . . . | 26,172 | 41,638 | " . . . 15,466 |
| August, . . . | 30,016 | 33,038 | " . . . 3,022 |
| September, . . . | 32,259 | 37,564 | " . . . 5,305 |
| October, . . . | 22,816 | 27,299 | " . . . 4,483 |
| November, . . . | 11,576 | 10,886 | Decrease, . . . 690 |
| December, . . . | 8,915 | 9,112 | Increase, . . . 197 |
| January, . . . | 5,984 | 6,560 | " . . . 576 |
| February, . . . | 4,893 | 3,355 | Decrease, . . . 1,538 |
| | 203,773 | 280,739 | Increase, . . . 76,966 |

Average daily admission, 769
 The greatest number of visitors on any one day was on
 Thursday, July 4th, 6,389

*Monthly Record of Receipts from admissions for 1878-79,
with corresponding account for 1877-78.*

| MONTH. | 1877-78. | 1878-79. | COMPARISON. |
|-------------|-------------|-------------|-----------------------|
| March, . . | \$1,072 60 | \$2,129 60 | Increase, \$1,057 00 |
| April, . . | 2,913 95 | 3,503 85 | " 589 90 |
| May, . . . | 4,156 65 | 7,534 15 | " 3,377 50 |
| June, . . . | 3,832 00 | 6,097 25 | " 2,265 25 |
| July, . . . | 5,118 15 | 6,319 90 | " 1,201 75 |
| August, . | 5,831 25 | 6,351 96 | " 520 71 |
| September, | 6,460 55 | 7,517 70 | " 1,057 15 |
| October, . | 4,542 40 | 5,432 18 | " 889 78 |
| November, | 2,054 55 | 2,146 15 | " 91 60 |
| December, | 1,653 35 | 1,632 90 | Decrease, 20 45 |
| January, . | 990 75 | 1,151 25 | Increase, 160 50 |
| February, | 929 30 | 593 75 | Decrease, 335 55 |
| | \$39,555 50 | \$50,410 64 | Increase, \$10,855 14 |

Average daily receipts from admissions, \$138 11

The largest amount of receipts at the gates on any one
day was on Thursday, July 4th, 1,311 20

*Total Receipts on the several days of the week, and their respective
averages, for 1878-79.*

| RANK. | DAYS. | TOTAL RECEIPTS. | AVERAGE. |
|-------|---|-------------------------|------------|
| 1 | Sunday, | \$18,820 70 | \$361 94 |
| 2 | Thursday, | 6,931 56 | 133 30 |
| 3 | Saturday, | 5,965 01 | 114 71 |
| 4 | Wednesday, | 5,023 10 | 96 60 |
| 5 | Monday, | 4,606 15 | 88 58 |
| 6 | Friday, | 4,080 95 | 78 48 |
| 7 | Tuesday, | 3,830 67 | 73 67 |
| | Miners' and railroad excursions, special, | \$49,258 14 1,152 50 | = \$134 95 |
| | | \$50,410 64 | = \$138 11 |

IMPROVEMENTS.

The Board regret their continued inability to completely lay out and grade, drain and plant the southern part of the Garden, and to continue the stone wall and iron fence along the Thirty-fifth street drive. Until the finances of the Society permit of these improvements, the present unsightly appearance of this part of the grounds is inevitable, and detracts much from the general appearance of the whole. The undermining of the walls of the prairie dog village and the escape of the animals from their enclosure made it necessary to excavate, repair, and place new walls of greater depth around it. This has been done at a cost of \$375. The remaining buildings of the Society have been kept in order, but no other buildings or improvements have been carried on during the year.

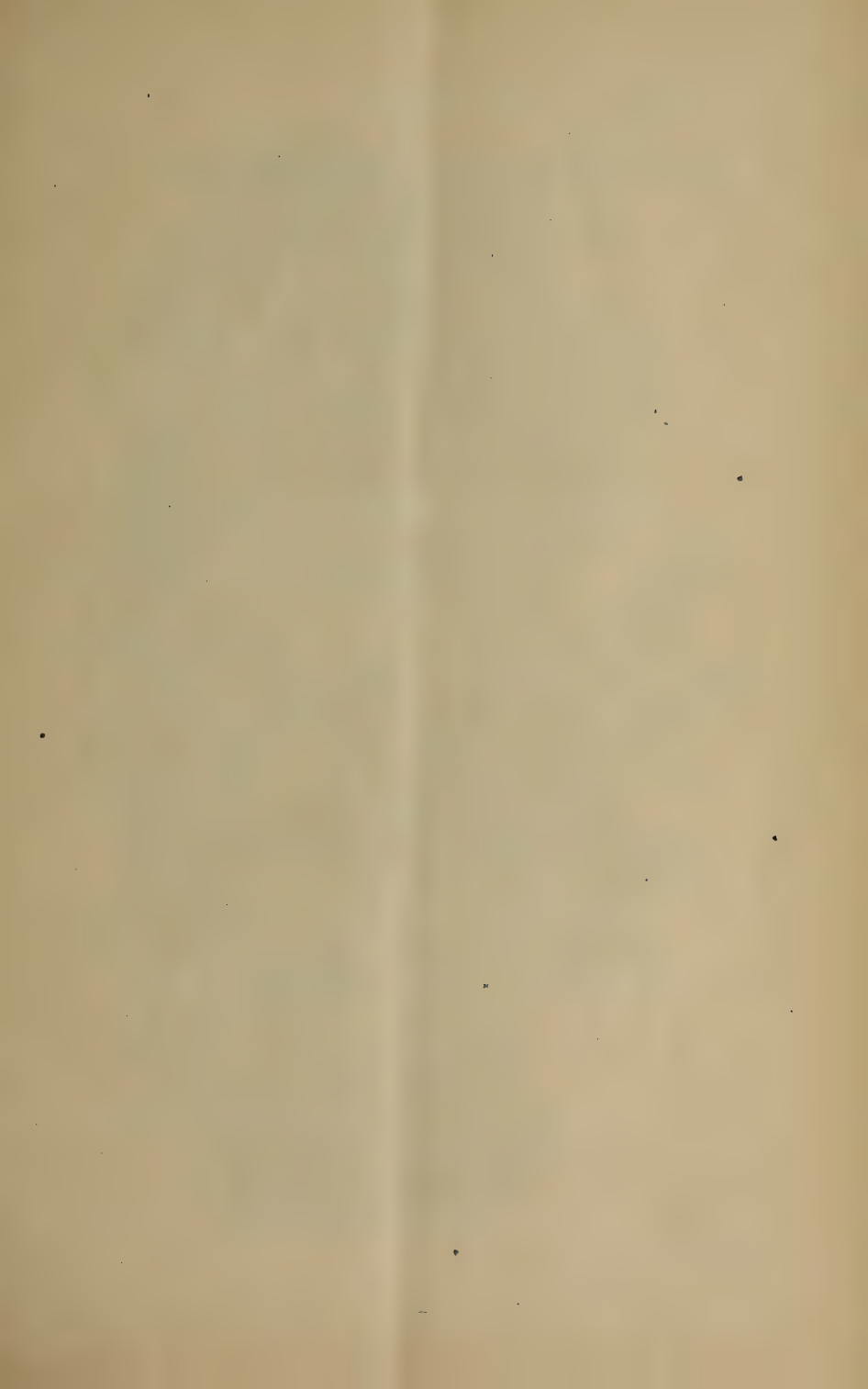
FINANCES.

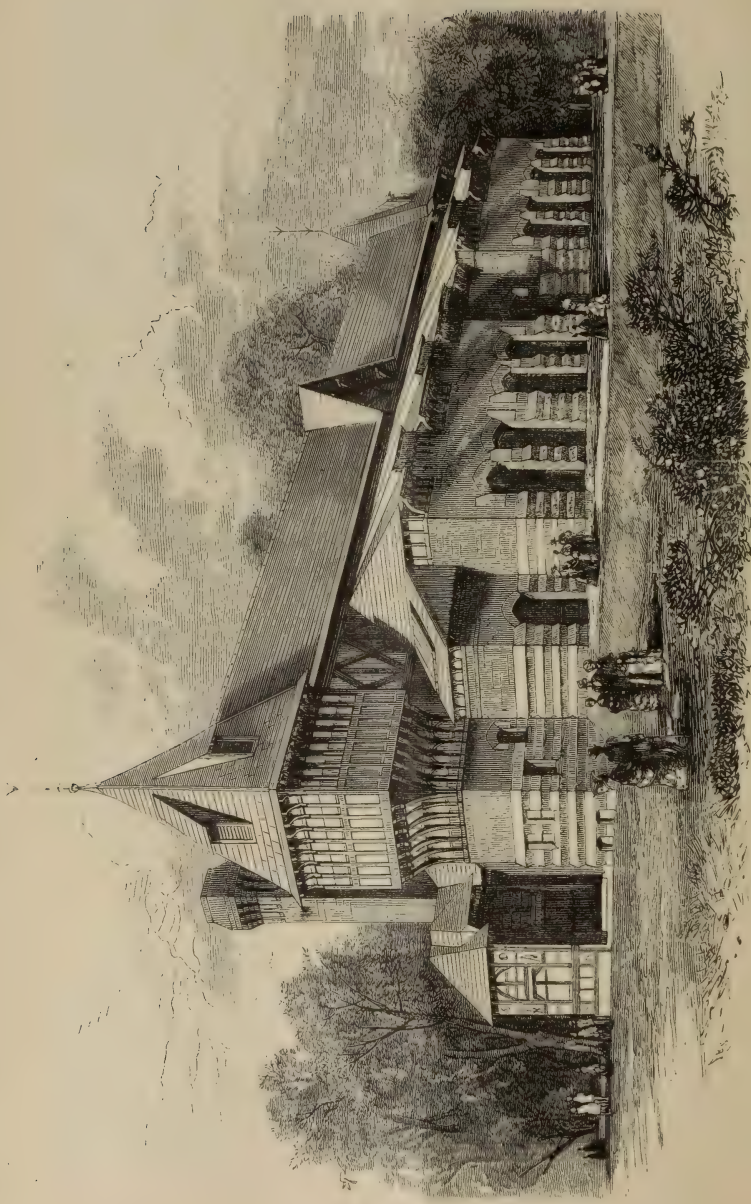
The increased gate receipts of the year, and the rigid economy maintained in all of the services of the Society have produced good results.

| | | | |
|---|------------|----------|-------------|
| The income of 1878 exceeded that of 1877 by | | | \$8,853 51 |
| And the expenses show the following savings:— | | | |
| Decrease of salaries, | \$3,695 32 | | |
| “ expenses, | 1,251 28 | | |
| “ general expenses, maintenance, | 3,489 53 | 8,436 13 | |
| | | <hr/> | <hr/> |
| Gross gain over 1877-78, | | | \$17,289 64 |
| | | | <hr/> <hr/> |

The unusually large loss on animals, consequent on the extreme severity of the winter, and sudden changes of temperature which have occurred during the past season, reduce considerably our net gains. The floating debt of the Society has, however, been reduced from \$20,500 to \$9000.

The financial condition of the Society is exhibited by the following figures, and the Treasurer's statement and balance sheet, in Appendix A:—





ELEPHANT HOUSE.

INCOME AND EXPENDITURES

For the fiscal year ending March 1st, 1879.

INCOME.

| | | |
|--|-------------------|-------------|
| Members' initiation fees and dues, | \$780 00 | |
| Admission receipts, | 50,410 54 | |
| Rents at Garden, | 2,000 00 | |
| Profit on sale of Guides, | 93 48 | |
| Sundry receipts, | 1,117 29 | |
| | <u> </u> | \$54,401 31 |

EXPENDITURES.

(Exclusive of Permanent Improvements, &c.)

| | | |
|--|-------------------|--------------------------|
| Salaries, | \$16,720 90 | |
| Office expenses, | 481 52 | |
| General expenses, | 18,466 62 | |
| | <u> </u> | \$35,669 04 |
| Estimated loss on animals, | 10,994 09 | |
| Interest, discount, &c., | 1,531 37 | |
| | <u> </u> | \$48,194 50 |
| Balance to credit of profit and loss for year, | | <u><u>\$6,206 81</u></u> |

CAPITAL.

Receipts and Expenditures for year ending March 1st, 1879.

RECEIPTS.

| | | |
|----------------------------|-------------------|-------------|
| Sale of animals, | \$146 70 | |
| Temporary loans, | 9,000 00 | |
| Donation, | 1,630 60 | |
| | <u> </u> | \$10,777 30 |

EXPENDITURES.

| | | |
|--|---------------------------|---------------------------|
| Permanent improvements and animals per items in Treasurer's statement (Appendix A) | \$5,087 79 | |
| Time warrants paid, | 4,500 00 | |
| Temporary loans paid, | 16,000 00 | |
| | <u> </u> | \$25,587 79 |
| Less amount charged to profit and loss for loss this year on animals, | 10,994 09 | |
| Balance (being excess of expenditures over receipts of capital, and provided from profit and loss), | | <u><u>\$3,816 40</u></u> |
| | <u><u>\$14,593 70</u></u> | <u><u>\$14,593 70</u></u> |

MENAGERIE.

The condition of the Menagerie, and the incidents attending the operation of the Garden, during the past year, will be found fully set forth in the reports of the General Superintendent and Prosector, Appendices B and C.

The increasing interest in the Society, and the objects it is intended to promote, are evidenced by many gifts of animals and thoughtful attentions from all sections of the United States. To all such well-wishers the thanks of the Board are due.

By order of the Board.

JOHN SAMUEL,
Secretary.

APPENDIX A.

TREASURER'S STATEMENT.

March 1st, 1878, to March 1st, 1879.

| DR. | |
|---|-------------|
| To Balance March 1st, 1878, | \$1,376 06 |
| " Temporary loans, | 9,000 00 |
| " Donations, | 1,630 60 |
| " Sale of animals, | 146 70 |
| " Members' fees and dues, | \$780 00 |
| " Admission receipts, | 50,410 54 |
| " Rents at Garden, | 2,000 00 |
| " Profit on sale of Guides, | 93 48 |
| " Sundries, | 1,117 29 |
| | |
| Transferred to credit of profit and loss, | 54,401 31 |
| | \$66,554 67 |

| CR. | |
|---|-------------|
| By Warrants paid for:— | |
| Salaries, | \$16,720 90 |
| Office expenses, | 481 52 |
| Subsistence, | 8,937 90 |
| Advertising, | 1,744 40 |
| Fuel and light, | 1,236 50 |
| Printing, | 295 75 |
| Expressage, | 138 95 |
| Repairs, | 1,045 35 |
| Extra labor and jobbing, | 1,240 75 |
| Hardware and tools, | 186 98 |
| Lumber, | 280 85 |
| Water rent, | 1,050 00 |
| Removing trees, | 987 37 |
| Uniforms, &c., | 116 00 |
| Insurance, | 397 80 |
| Interest, discount, &c., | 1,531 37 |
| Sundry expenses, | 808 02 |
| | |
| Maintenance, &c., transferred to debit of profit and loss, | \$37,200 41 |
| Amount carried forward, | \$37,200 41 |

| | | |
|---|----------|--------------------|
| Amount brought forward, | | \$37,200 41 |
| Purchase of animals, | 3,200 79 | |
| Water supply and drainage, | 484 90 | |
| Polar bear pit, | 642 40 | |
| Vulcanite walks, | 387 92 | |
| Horticulture, | 264 03 | |
| Deer house, | 107 75 | |
| <hr/> | | |
| Total permanent improvements and animals, | | 5,087 79 |
| Time warrants, | | 4,500 00 |
| Temporary loans, | | 16,000 00 |
| Balance on hand March 1st, 1879, | | 3,766 47 |
| <hr/> | | |
| | | <u>\$66,554 67</u> |

EDWARD BIDDLE,
Treasurer.



BALANCE SHEET.

DR.

Zoological Society, March 1st, 1879.

CR.

| | | | |
|--------------------------------------|---------------------|----------------------------|---------------------|
| Cash, | \$3,766 41 | Loan, | \$300,000 00 |
| Water supply and drainage, | 11,658 98 | Donations, | 11,855 74 |
| Animal account, | 49,283 00 | Life members, | 9,455 00 |
| Aviaries, | 10,257 04 | Temporary loans, | 9,000 00 |
| Bear pits, | 7,333 49 | Profit and loss, | 95,048 02 |
| Monkey house, | 8,343 99 | | |
| Cages, | 4,960 40 | | |
| Vutcanized walks, | 33,292 66 | | |
| Fencing, | 5,603 94 | | |
| Deer parks and enclosures, | 3,903 75 | | |
| Prairie dog village, | 937 52 | | |
| Penn mansion, | 1,615 66 | | |
| Gate houses, | 12,321 27 | | |
| Buffalo house, | 1,572 78 | | |
| Lake, | 10,997 36 | | |
| Walks, roads, and grading, | 74,037 26 | | |
| Houses for sundry animals, | 6,720 79 | | |
| Carnivora house, | 58,566 82 | | |
| Green houses, | 4,783 82 | | |
| Skating house, | 1,378 41 | | |
| Barn, | 3,744 34 | | |
| Elephant house, | 38,440 42 | | |
| Horticulture, | 5,880 23 | | |
| Signs, | 560 66 | | |
| Seal ponds, | 9,599 73 | | |
| Carriage sheds, | 4,078 80 | | |
| Restaurant, | 15,096 79 | | |
| Settees and chairs, | 2,832 00 | | |
| Photograph stand, | 736 00 | | |
| New aviary, | 416 50 | | |
| Deer house, | 21,625 92 | | |
| Reptile house, | 1,746 31 | | |
| Camel house, | 933 50 | | |
| Music stand, | 1,667 00 | | |
| Permanent enclosure, | 6,277 23 | | |
| | <u>\$425,358 76</u> | | <u>\$425,358 76</u> |

APPENDIX B.

To the President and Board of Directors of the Zoological Society:

GENTLEMEN:—I submit to you my report of the condition of affairs at the Garden of the Society during the past year and at the present time.

The collection of animals now comprises

| | |
|---------------------------------------|----------------|
| 378 Mammals, valued at | \$44,777 |
| 327 Birds, valued at | 4,120 |
| 52 Batrachians, } valued at | 386 |
| 69 Reptiles, } | |
| <hr/> Total, 826 | <hr/> \$49,283 |

The additions to the menagerie during the year have, as usual, been numerous and varied in character. Among the specimens received which are worthy of particular mention were, in

MARCH,

A Tree Boa (*Epicrates angulifer*) and a lizard, the Crested Anolis (*Anolis equestris*), from the West Indies; four Sirens (*Siren lacertina*), from South Carolina; and two Spotted Salamanders (*Salamandra maculosa*), from Germany. A Pig-tailed Macaque Monkey (*Macacus nemestrinus*) was born on the 21st inst., and has been successfully reared. Several other animals of less importance were also bred during this month and in April.

MAY.

A pair of young Chimpanzees (*Troglodytes niger*), which had been purchased in the previous month, arrived at the Garden on the 2d of May. In the absence of a building particularly adapted to their wants, one of the pens on the south side of the Deer

House was enclosed with a glass front and fitted with heating and ventilating appliances for their reception. The natural delicacy of constitution, common to all of the monkey tribe, predisposing them to pulmonary diseases and disorders of the alimentary system, is strongly marked in the higher members of the order, and renders it extremely difficult to keep them alive in the close confinement necessary under our rigorous climate. It was not anticipated, therefore, that these animals would long remain inmates of the Garden, and this expectation was realized by the death of the female, in December, of gastritis, resulting, without doubt, from a severe cold, and the loss of the remaining one from a similar disease about six weeks later. They proved to be exceedingly interesting, and were usually surrounded by large numbers of visitors.

Two lizards, from the south-western borders of the United States (*Holbrookia maculata* and *Crotaphytus collaris*), presented by Professor E. D. Cope; a specimen of the Ring-necked Snake (*Diadophis punctatus*), found in the eastern portion of the United States; a Scarlet Ibis (*Ibis rubra*), from the Amazon river, and a pair of Wild Boars (*Sus scrofa*), from northern Africa, presented by Felix A. Mathews, Esq., United States Consul-General at Tangier, all of which were new to the collection, were also received during the month.

JUNE.

Several collections of snakes were received from friends of the Society in Ohio and Indiana in the month of June. These belonged mostly to the genera *Heterodon*, *Ophibolus*, *Coluber*, *Tropidonotus*, *Eutænia*, *Bascanion*, and *Cemophora*, and contained a number of species which had not previously been exhibited. A buck of the white variety of the European Fallow Deer (*Dama vulgaris*) was bred in the Garden, as well as a fawn of the Mule Deer (*Cervus macrotis*), from the western United States—this species never before having bred in the menagerie.

JULY.

These births were shortly followed in July by another fawn of the latter species, with several young Virginia Deer (*Cervus virginianus*), a Capromys (*Capromys pilorides*), and four Beaver (*Castor fiber canadensis*).

Two Tortoises (*Testudo tabulata*), from Surinam, were also received from Dr. Constantine Hering.

SEPTEMBER.

In the month of September a number of purchases were made, including two very interesting monkeys from South America—the Douroucouli (*Nyctipithecus trivirgatus*), one of the curious nocturnal monkeys of that region, and a *Cebus*, which has not been identified with certainty, but which appears to be the Pale *Cebus* (*Cebus flavescens*) of Gray. Among the other animals purchased were a fine pair each of the Griffon Vulture (*Gyps fulvus*) and the Cinereus Vulture (*Vultur cinereus*) of southern Europe and northern Africa, and a specimen of a rare and beautiful antelope from South Africa, the Brindled Gnu (*Catoblepas gorgon*). A Dalmatian Glass Snake (*Pseudopus pallasii*), a curious snake-like lizard from Europe, was brought from Germany and presented to the Society by Captain John H. Mortimer, to whom the collection owes several interesting specimens received on previous occasions. Several snakes of our own fauna (*Entænia sirtalis parietalis* and *Tropidonotus rhombifer*) were also received, with a Brown Pelican (*Pelecanus fuscus*) from Florida.

OCTOBER.

Several species of native birds, which had not been previously exhibited, were received, and a pair of Hoopoes (*Upupa epops*), with a Jackdaw (*Corvus monedula*), from Europe, were purchased. Four Common Chameleons (*Chamaeleon vulgaris*) were procured from Egypt and presented by Captain Sargent of the steamship "Indiana," and a Yarrell's Curassow (*Crax carunculata*), brought from Brazil by Dr. Ruth, of the United States steamer "Enterprise," which had been engaged in a survey of the river Amazon, were also received.

DECEMBER.

A specimen of the beautiful Dorcas Gazelle (*Gazella dorcas*), from northern Africa, was donated to the Society by Commodore English, of the United States Navy. A Green-winged Parrakeet (*Brotogeris virescens*) was also received from South America.

JANUARY.

A pair of a curious variety of the domestic goose, from Toulouse, France; a number of Dingos (*Canis dingo*), bred in the Garden, and an Amphiuma (*Amphiuma means*), a batrachian



AVIARY

T. L. OR-SMITH, PHIL.

from the southern United States, now becoming rare, presented by Dr. Manigault of South Carolina, complete the list of noteworthy arrivals for the year.

The species which were for the first time placed on exhibition are as follows:—

MAMMALIA :—

- Chimpanzee (*Troglodytes niger*), Africa.
- Douroucouli (*Nyctipithecus trivirgatus*), South America.
- Pale Cebus (*Cebus flavescens*), South America.
- Little Brown Bat (*Vespertilio subulatus*), North America.
- Ermine (*Putorius erminea*), North America.
- White-footed Mouse (*Hesperomys leucopus*), North America.
- Wild Boar (*Sus scrofa*), Europe, Asia, and Africa.
- Brindled Gnu (*Catoblepas gorgon*), South Africa.
- Dorcas Gazelle (*Gazella dorcas*), Egypt.

AVES :—

- Song Thrush (*Turdus musicus*), Great Britain.
- Chaffinch (*Fringilla cœlebs*), Great Britain.
- Jackdaw (*Corvus monedula*), Europe and Asia.
- Common Hoopoe (*Upupa epops*), Europe, Asia, and North Africa.
- Night Hawk (*Chordeiles virginianus*), United States.
- Green-winged Parrakeet (*Brotogeris virescens*), South America.
- Cinereous Vulture (*Vultur cinereus*), Europe and Africa.
- Griffon Vulture (*Gyps fulvus*), Europe and Africa.
- Yarrell's Curassow (*Crax carunculata*), Brazil.
- Sickle-billed Curlew (*Numenius longirostris*), United States.
- Spotted Sandpiper (*Tringoides macularius*), North America.
- Scarlet Ibis (*Ibis rubra*), South America.
- Whooping Crane (*Grus americanus*), United States.
- Toulouse Goose.
- Brown Pelican (*Pelecanus fuscus*), Southern United States.
- Little Auk (*Mergulus alle*), North Atlantic.

BATRACHIA :—

- Amphiuma (*Amphiuma means*), Southern United States.
- Spotted Salamander (*Salamandra maculosa*), Europe and North Africa.

REPTILIA :—

- Ring-necked Snake (*Diadophis punctatus*), United States.
- Chain Snake (*Ophibolus doliatus triangulus*), United States.

- Snake (*Coluber vulpinus*), United States.
 Garter Snake (*Eutænia sirtalis parietalis*), United States.
 Garter Snake (*E. sirtalis dorsalis*), United States.
 Water Snake (*Tropidonotus rhombifer*), United States.
 Dalmatian Glass Snake (*Pseudopus pallasii*), Europe.
 Crested Anolis (*Anolis equestris*), West Indies.
 Lizard (*Holbrookia maculata*), South-west United States.
 Lizard (*Crotaphytus collaris*), South-west United States.
 Chameleon (*Chamæleon vulgaris*), Europe, Asia, and Africa.

During the year the following animals were bred in the menagerie:—

- 1 Pig-tailed Macaque (*Macacus nemestrinus*).
- 7 Dingos (*Canis dingo*).
- 2 Zebus (*Bos indicus*).
- 2 Angora Goats (*Capra hircus* var.).
- 1 Yemen Sheep (*Ovis aries* var.).
- 2 Savannah Deer (*Cervus savannarum*).
- 2 Virginia Deer (*Cervus virginianus*).
- 2 Mule Deer (*Cervus macrotis*).
- 2 Elk (*Cervus canadensis*).
- 1 Fallow Deer (*Dama vulgaris*).
- 2 Bactrian Camels (*Camelus bactrianus*).
- 23 Prairie Dogs (*Cynomys ludovicianus*).
- 4 Beaver (*Castor fiber canadensis*).
- 1 Capromys (*Capromys pilorides*).
- 1 Great Kangaroo (*Macropus giganteus*).
- 3 Rat Kangaroos (*Hypsiprymnus rufescens*).
- 3 Peafowls (*Pavo cristata*).
- 4 Ruffed Grouse (*Bonasa umbellus*).

Some ill effects were experienced in the menagerie from the extreme heat of the summer as well as from the sudden cold wave which swept over the country on the 3d of January, when the temperature in each building fell from fifteen to thirty-five degrees below its proper point. So far, however, the results of this severe exposure have not been as great as was anticipated.

The figures representing the amount of loss suffered by the collection appears to be large in comparison with those of previous years. Of the amount, however, \$3494.09 is considered to be a fair proportion of depreciation in value of the animals, partly by reason of increasing age, but principally owing to the



BEAR PITS

TAYLOR & SMITH PHIL

general shrinkage of values. The remaining \$7500 is estimated to be the actual loss by death.

The mere number of deaths is always swelled to a disproportionate extent by the large number of our common native quadrupeds, birds, and reptiles which are presented to the Society shortly after their capture. Such specimens it is nearly always impossible to domesticate, and, as they are for the most part valueless, it is in very few cases worth while to make a determined effort, involving both time and expense, to preserve them. They are all, however, entered upon the records of arrivals and deaths, and form a list whose value bears a very small proportion to its extent.

The principal losses by death have been a male eland, which died during the summer from tuberculosis of the lungs; two vicunas, which were killed during the night by a couple of dingos which had escaped from their cage; a slightly-deformed lioness and an aoudad, both of which succumbed to the weakness of old age; a half-grown lion, which died of disease resulting from the constitutional weaknesses common among members of the cat family which are bred under domestication, and the leopard "Commodore Lawrence," which died of pneumonia. These, with the two chimpanzees, which died of gastritis and peritonitis, make up a large proportion of the estimated loss for the year.

Little work has been undertaken at the Garden during the period covered by my report, beyond what has been necessary for the preservation of the buildings and enclosures already completed. A slaughter-house has been built at slight expense, near the southern end of the Garden, for the purpose of killing and dressing the horses which have been largely used in feeding the carnivorous animals.

The iron fence at the Girard avenue entrance and along part of the Thirty-fifth street line, together with nearly all of the outdoor enclosures of iron, have been repainted. All of the roofs of the large buildings were in need of repair, and suffered considerable damage from the gale of October 23d. They have been thoroughly renovated and put in proper condition. New wire work was required in most of the cages in the Aviary, and has been provided.

The prairie dogs, having burrowed out from their village and distributed themselves over the adjacent part of the Garden, it became necessary to make their enclosure more secure. To accomplish this it was excavated to a considerable depth, floored with stone flags, and refilled.

The safety of the animals in the outdoor enclosures having been constantly endangered by the breaking off of limbs and the falling of trees during heavy storms, it was considered advisable to take down all of the trees which were already dead, and to top those remaining. This difficult task was accomplished, wherever it appeared to be necessary, without any serious damage to the property of the Society.

In conclusion, I desire to say that strict economy has been observed in every department, with the result of effecting a large saving in current expenses, and I take pleasure in recognizing the fact that the efforts of all employees of the Society have been cheerfully directed toward this end.

The usual list of additions to the menagerie will be found accompanying my report.

Respectfully,

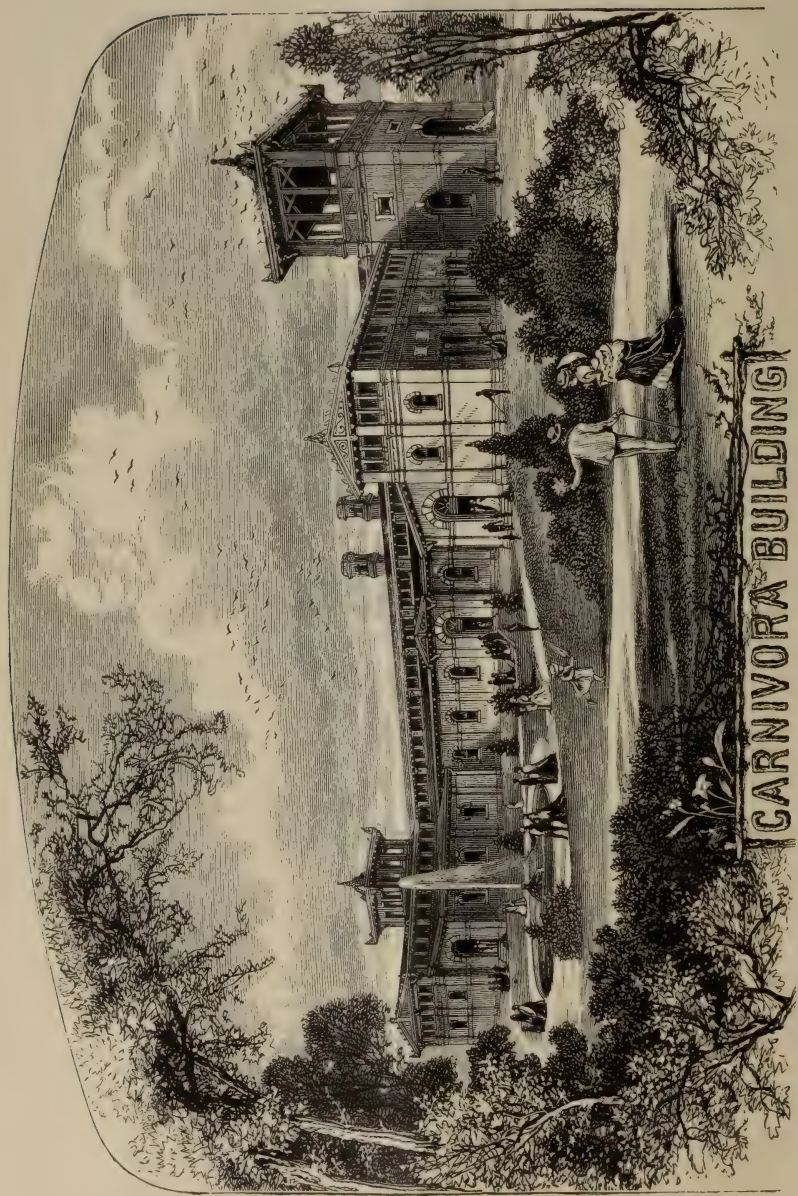
ARTHUR E. BROWN,

Superintendent.

ZOOLOGICAL GARDEN, *March 1st, 1879.*







CARNIVORA BUILDING

APPENDIX C.

*To the Board of Directors of
The Zoological Garden of Philadelphia :*

GENTLEMEN :—I have the honor of presenting my report as Prosector of the Society.

It is with pleasure that I can state, that while the number of animals in the Garden is steadily increasing, the mortality among them is relatively decreasing. The experience of the past two years has confirmed the conviction expressed by me in a previous report submitted to the Board, that improper food, both in quantity and quality, ill-constructed cages, and climatic changes are the main causes of the mortality in zoological gardens, and that the administration of drugs to really sick animals is of but little avail. When we consider the unnatural conditions to which an animal is subjected under confinement, and which the exigencies of a menagerie often unavoidably demand, the wonder is not that the animals die but that they live. The relatively small mortality in the Garden I attribute to the efforts made so far as possible to surrounding the animals with conditions approximating to those of nature, to letting them alone, and to the very sparing use of medicines. In making my post-mortem examinations of the animals that have died in the Garden, when any facts of scientific interest presented themselves I communicated the same to the Academy of Natural Sciences of Philadelphia, and when such facts were novel they have been published in the proceedings of the same.

| 1877. | NAME OF ANIMAL. | CAUSE OF DEATH. |
|-------|-------------------------------------|---------------------|
| March | 24. Raccoon (<i>P. lotor</i>). | Pneumonia. |
| April | 2. Hare (<i>C. pilorides</i>). | No organic disease. |
| " | 7. Capybara (<i>H. capybara</i>). | Septicaemia. |
| " | 23. Porcupine (<i>C. melan</i>). | Laceration of head. |

| | 1877. | NAME OF ANIMAL. | CAUSE OF DEATH. |
|----------|-------|--|----------------------------|
| May | 7. | Hellbender (<i>M. alleghen</i>). | No organic disease. |
| " | 7. | Menobranchleus (<i>M. maculatus</i>). | " " |
| " | 12. | Lynx (<i>L. canadensis</i>). | " " |
| " | 27. | Ocelot (<i>F. pardalis</i>). | Pericardites. |
| " | 27. | Sacred Monkey (<i>S. entellus</i>). | Scurvy. |
| " | 27. | Macaque Monkey (<i>M. nemestrinus</i>). | Scurvy. |
| " | 30. | Sacred Monkey (<i>S. entellus</i>). | Scurvy. |
| June | 22. | 2 Sea Lions (<i>Z. gillespei</i>). | Hemorrhage. |
| " | 22. | Hellbender (<i>M. alleghen</i>). | Hook in throat. |
| " | 22. | Petaurist (<i>B. flaviventer</i>). | Hypertrophy of heart. |
| August | 3. | Seal (<i>P. vitulina</i>). | |
| " | 27. | Seal (<i>P. vitulina</i>). | |
| October | 13. | Sea Lion (<i>Z. gillespei</i>). | Tuberculosis. |
| " | 13. | Vervet Monkey (<i>C. lalandii</i>). | " |
| Nov'r | 14. | Lizard (<i>I. turberculata</i>). | No organic disease. |
| | 1878. | | |
| January | 27. | Lion (<i>F. leo</i>). | Congestion of spinal cord. |
| " | 27. | Armadillo (<i>D. seacinctus</i>). | No organic disease. |
| February | 12. | Spider Monkey (<i>A. melanchol</i>). | Tuberculosis. |
| " | 12. | Ocelot (<i>F. pardalis</i>). | Gastritis. |
| March | 25. | Siren (<i>S. lacertina</i>). | No organic disease. |
| April | 30. | Porcupine (<i>H. javanica</i>). | Hypertrophy of heart. |
| May | 29. | Palin Cat (<i>P. typus</i>). | Fatty liver. |
| June | 5. | Kangaroo (<i>M. rufus</i>). | Ulcer of stomach. |
| " | 5. | Peccari (<i>D. torquatus</i>). | Parturition. |
| " | 5. | Antelope (<i>A. americana</i>). | Fracture of skull. |
| July | 12. | Eland (<i>G. canna</i>). | Tuberculosis. |
| October | 1. | Thibet Bear (<i>V. thibetanus</i>). | Hypertrophy of heart. |
| " | 24. | Macaque Monkey (<i>M. cynomol</i>). | Congestion of lungs. |
| Dec'r | 14. | Macaque Monkey (<i>M. erythroos</i>). | Tuberculosis. |
| " | 19. | Aoudad (<i>O. tragelaphus</i>). | Old age. |
| " | 24. | Lioness (<i>F. leo</i>). | Old age. |
| " | 27. | Chimpanzee (<i>T. niger</i>). | Gastro-intestinal catarrh. |
| | 1879. | | |
| January | 10. | Seal (<i>Phoca vitulina</i>). | Congestion of lungs. |
| " | 16. | Bornean Sun Bear (<i>H. euryspilus</i>). | Tuberculosis. |
| Feb'y | 19. | Leopard (<i>F. leopardus</i>). | Pneumonia. |
| " | 26. | Bear (<i>U. Am. cinnamomeus</i>). | Hydrothorax. |

Respectfully,

HENRY C. CHAPMAN,
Prosector.

PHILADELPHIA, March 1ST, 1879.

APPENDIX D.

LIST OF ADDITIONS TO THE MENAGERIE DURING THE YEAR ENDING FEBRUARY 28th, 1879.

1878.

- Mar. 1. 1 Great Horned Owl (*Bubo virginianus*). Presented by E. J. Lozier Plimpton, Holmes Co., Ohio.
9. 1 Crested Anolis (*Anolis equestris*). } Presented by Joseph M. Naglee,
1 Tree Boa (*Epicrates angulifer*). } Philadelphia.
13. 1 Angora Goat (*Capra hircus*). Born in Garden.
16. 2 Woodchucks (*Arctomys monax*). Presented by John E. Sulger, Philadelphia.
- 1 Raccoon (*Procyon lotor*). Presented by Harry Bidwell, Philadelphia.
19. 1 Angora Goat (*Capra hircus*). Born in Garden.
20. 1 Common Seal (*Phoca vitulina*). Purchased.
21. 1 Macaque Monkey (*Macacus nemestrinus*). ♀ Born in Garden.
22. 1 Alligator (*Alligator mississippiensis*). Presented by John P. Kochersperger, Philadelphia.
25. 4 Sirens (*Siren lacertina*). Presented by Dr. G. E. Manigault, Charleston, South Carolina.
27. 2 Spotted Salamanders (*Salamandra maculosa*). Presented by Captain John H. Mortimer, New York.
- 1 Bactrian Camel (*Camelus bactrianus*). Born in Garden.
30. 1 Alligator (*Alligator mississippiensis*). Presented by Edward Welsh, Philadelphia.
- 1 Alligator (*A. mississippiensis*). Presented by Miss Josephine Voorhis, Philadelphia.
- April 1. 1 Ruffed Grouse (*Bonasa umbellus*). Presented.
3. 2 White Rabbits (*Lepus cuniculus*). Presented by Willie A. Brown, Philadelphia.
- 8 Garter Snakes (*Eutaenia sirtalis*). } Presented by F. J. Waugh,
2 Water Snakes (*Tropidonotus sipedon*). } Philadelphia.
4. 2 Alligators (*Alligator mississippiensis*). Presented by Willie Stewart, Philadelphia.
5. 1 Bittern (*Botaurus minor*). Presented by William Dayton, Camden, New Jersey.
8. 1 Red Fox (*Vulpes fulvus*). Presented by A. Campbell, Philadelphia.
1 Rufous Rat-Kangaroo (*Hypsiprymnus rufescens*). Born in Garden.
11. 1 Gray Fox (*Vulpes virginianus*). Presented by Daniel Page, Duncannon, Pa.
12. 1 Alligator (*Alligator mississippiensis*). Presented by F. B. C. Roberts, Philadelphia.

1878.

- April 18. 2 Alligators (*A. mississippiensis*). } Presented by W. Porter,
 1 Horned Toad (*Phrynosoma cornuta*). } Philadelphia.
22. 1 Horned Toad (*P. cornuta*). Presented by E. R. Heilman, Philadelphia.
- 1 Cat Bird (*Mimus carolinensis*). Presented by Bernard Simon, Philadelphia.
- 1 Robin (*Turdus migratorius*). Presented by Milton Marshall, Philadelphia.
- 1 Opossum (*Didelphys virginianus*). Presented by Fred. Walter, Philadelphia.
23. 1 Belted Kingfisher (*Ceryle alcyon*). Presented by George W. Moore, Philadelphia.
- 1 Pied-billed Grebe (*Podilymbus podiceps*). Purchased.
24. 1 Pinche Monkey (*Midas ædipus*). Presented by A. L. Crawford, Philadelphia.
27. 1 Virginia Deer (*Cervus virginianus*). Born in Garden.
 1 Great Kangaroo (*Macropus giganteus*). Born in Garden.
- May 2. 1 Spotted Sandpiper (*Tringoides macularius*). Presented by Henry Horan, Washington, D. C.
 1 Pair Chimpanzees (*Troglodytes niger*). Purchased.
 2 Gray Foxes (*Vulpes virginianus*). Presented by the Boys of the House of Refuge, Philadelphia.
5. 1 Zebu (*Bos indicus*). Born in Garden.
6. 1 Lizard (*Holbrookia maculata*). } Presented by Prof. E. D. Cope,
 1 Lizard (*Crotaphytus collaris*). } Philadelphia.
7. 2 Carolina Parakeets (*Conurus carolinensis*). Presented by Richard M. Cadwalader, Philadelphia.
 1 Titmouse. Presented by P. F. Harpel, Philadelphia.
9. 1 Raccoon (*Procyon lotor*). Presented by J. F. Thomas, Germantown, Pennsylvania.
 1 Garter Snake (*Eutaenia sirtalis*). Presented by James Carberry, Philadelphia.
10. 1 Woodchuck (*Arctomys monax*). Presented by Dr. M. A. Durney, Cecilton, Cecil Co., Maryland.
13. 1 Corn Snake (*Coluber guttatus*). Presented by Henry Horan, Washington, D. C.
14. 1 Mountain Black Snake (*Coluber obsoletus*). Presented.
15. 1 Blue Jay (*Cyanura cristata*). Presented by Samuel H. Johnson, Frankford, Philadelphia.
16. 1 Ring-necked Snake (*Diadophis punctatus*). Presented.
17. 1 Alligator (*Alligator mississippiensis*). Presented by A. W. Purves, Philadelphia.
21. 9 Prairie Dogs (*Cynomys ludovicianus*). Born in Garden.
22. 1 Broadwinged Hawk (*Buteo pennsylvanicum*). Presented by S. Tssadrr, Philadelphia.
 1 Hog-nosed Snake (*Heterodon platyrhinos*). Presented by Col. T. M. Bryan, Vincentown, N. J.
 1 Pine Snake (*Pituophis melanoleucus*). Presented by Col. T. M. Bryan, Vincentown, N. J.
25. 1 Glass Snake (*Ophiosaurus ventralis*). Presented by Andrew Losh, Kansas.

1878.

- May 25. 1 Opossum with 11 young (*Didelphys virginiana*). Presented by Blackwell Bros., Washington's Crossing, New Jersey.
- 1 Scarlet Ibis (*Ibis rubra*). Presented by Col. Jameson, Milford, N. J.
28. 2 Copperhead Snakes (*Ancistrodon contortrix*). Presented by Jacob Hocker, Ocean View, Delaware.
- 1 Great Horned Owl (*Bubo virginianus*). Presented by Redmond Abbott, Philadelphia.
29. 1 Pair Wild Boars (*Sus scrofa*). Presented by Felix A. Matthews, U. S. Consul-General, Tangier, Morocco.
30. 2 Great Horned Owls (*Bubo virginianus*). Presented by J. H. Wilson, Philadelphia.
- June 1. 1 Raccoon (*Procyon lotor*). Presented by L. F. McDowell, Philadelphia.
- 3 Hog-nosed Snakes (*Heterodon platyrhinos*).
 1 Hog-nosed Snake (*H. simus*).
 2 Chain Snakes (*Ophibolus doliiatus triangulus*).
 2 Snakes (*Coluber vulpinus*).
 2 Water Snakes (*Tropidonotus sipedon*).
 2 Garter Snakes (*Eutaenia sirtalis parietalis*).
 2 Black Snakes (*Bascanion constrictor*).
 1 Copperhead Snake (*Ancistrodon contortrix*). Presented by C. C. Caldwell, Conowingo, Maryland.
3. 1 Milk Snake (*Coluber obsoletus confinis*). Presented by Charles Aldrich, Webster City, Iowa.
- 1 Pine Snake (*Pituophis melanoleucus*). Presented by Charles Dannfield, Cedar Lake, New Jersey.
4. 1 Garter Snake (*Eutaenia sirtalis*). Presented by William Hamilton, Philadelphia.
- 14 Prairie Dogs (*Cynomys ludovicianus*). Born in Garden.
6. 4 Ruffed Grouse (*Bonasa umbellus*). Bred in Garden.
7. 1 Rabbit (*Lepus cuniculus*). Presented by John Pearsall, Philadelphia.
- 8- 1 Spotted Cavy (*Cælogenyx paca*). Presented by John Harrdy.
- 1 Milk Snake (*Coluber obsoletus confinis*). Presented by Charles Aldrich, Webster City, Iowa.
9. 1 Mule Deer (*Cervus macrotis*). Born in Garden.
12. 2 Gray Gophers (*Spermophilus franklini*). Presented by Charles Aldrich, Webster City, Iowa.
- 2 Marmosets (*Hapale jacchus*). Presented by the Smithsonian Institution, Washington, D. C.
15. 1 Stoat (*Putorius erminea*). Presented by William H. Dampman, Philadelphia.
17. 1 Screech Owl (*Scops asio*). Presented by William Torpy, Radnor, Pa.
18. 1 Fallow Deer (*Dama vulgaris*). Born in Garden.
19. 3 Garter Snakes (*Eutaenia sirtalis*).
 1 Garter Snake (*E. sirtalis parietalis*).
 5 Snakes (*Coluber vulpinus*).
 1 Copperbelly Snake (*T. sipedon erythrogaster*).
 1 Water Snake (*T. sipedon*).
 3 Hog-nosed Snakes (*Heterodon platyrhinos*).
 1 Ringed Snake (*Cemophora coccinea*).
 1 Milk Snake (*Coluber obsoletus confinis*).
- Presented by
 Thrall & Mulford,
 New Harmony,
 Indiana.
- Presented by
 Messrs.
 Thrall & Mulford,
 New Harmony,
 Indiana.

1878.

- June 20. 1 Song Thrush (*Turdus musicus*). Presented by Willie W. Walker, Philadelphia.
 1 Gray Fox (*Vulpes virginianus*). Presented by M. C. Stafford, Philadelphia.
23. 2 Prairie Wolves (*Canis latrans*). Purchased.
 2 Swift Foxes (*Vulpes velox*). Purchased.
24. 1 Belzebuth Spider-Monkey (*Ateles belzebuth*). Presented by Charles B. Williams, Jenkintown, Pennsylvania.
 1 Robin (*Turdus migratorius*). Presented by Mrs. Stockley, Philadelphia.
26. 1 Coati (*Nasua narica*). Purchased.
27. 1 Gray Fox (*Vulpes virginianus*). Presented.
30. 1 Opossum and 10 young (*Didelphys virginiana*). Presented by Thomas H. Jackson, West Chester, Pennsylvania.
- July 1. 1 Mule Deer (*Cervus macrotis*). Born in Garden.
 4. 1 Pied-billed Grebe (*Podilymbus podiceps*). Presented by Margaret Hilton, Philadelphia.
 3. 1 Woodcock (*Philohela minor*). Presented by Frank S. Taber, Philadelphia.
 9. 5 Garter Snakes (*Eutaenia sirtalis*). Presented by John Pearsall, Philadelphia.
 1 Mink (*Putorius vison*). Presented by Philip Sharpless, West Chester, Pennsylvania.
10. 1 Virginia Deer (*Cervus virginianus*). Born in Garden.
 1 Fournier's Capromys (*Capromys pilorides*). Born in Garden.
12. 1 Little White Egret (*Ardea candidissima*). Presented by Henry Horan, Washington, D. C.
 4 Beaver (*Castor fiber canadensis*). Born in Garden.
13. 3 Common Peafowls (*Pavo cristatus*). Bred in Garden.
15. 1 White-throated Capuchin (*Cebus hypoleucus*). Presented by Samuel Castner, Philadelphia.
16. 2 Land Tortoises (*Testudo tabulata*). Presented by Dr. Constantine Herring, Philadelphia.
18. 1 Great Horned Owl (*Bubo virginianus*). Presented by S. A. Risley, Philadelphia.
 1 Bald Eagle (*Haliaeetus leucocephalus*). Presented by John Spencer, Philadelphia.
22. 1 Red-headed Woodpecker (*Melanerpes erythrocephalus*). Purchased.
23. 1 Hog-nosed Snake (*Heterodon platyrhinos*). Presented by Col. T. M. Bryan, Vincentown, New Jersey.
29. 1 Great Horned Owl (*Bubo virginianus*). Presented by Arthur D. Edgerton, Germantown, Pennsylvania.
31. 1 Great Horned Owl (*B. virginianus*). Presented by Harry Freed, Philadelphia.
- August 1. 1 Gray Squirrel (*Sciurus carolinensis*). Presented by Messrs. Samuel and John Wagner, Germantown, Pennsylvania.
6. 1 Diamond Rattlesnake (*Crotalus adamanteus*).
 1 Ground Rattlesnake (*Caudisonia miliaria*).
 1 Whip Snake (*Bascanion flagelliforme*).
 1 Black Snake (*B. constrictor*).
 1 Hog-nosed Snake (*Heterodon platyrhinos*). } Purchased.

1878.

- August 7. 2 Brown-throated Parrakeets (*Conurus æruginosus*). Purchased.
8. 1 Milk Snake (*Coluber obsoletus confinis*). Presented by Charles Aldrich, Webster City, Iowa.
11. 2 Bald Eagles (*Haliaeetus leucocephalus*). Presented by Dr. E. H. Shroud, Philadelphia.
15. 1 King Snake (*Ophibolus getulus*). Presented by Col. T. M. Bryan, Vincentown, New Jersey.
17. 1 Woodchuck (*Arctomys monax*). Presented by Enoch Harris, Philadelphia.
19. 1 Robin (*Turdus migratorius*). Presented by D. W. Gross, Philadelphia.
- 1 Snake (*Coluber vulpinus*). Presented by W. S. Bissell, Pittsburg, Pa.
22. 1 Rufous Rat-Kangaroo (*Hypsiprymnus rufescens*). Born in Garden.
24. 1 Great Horned Owl (*Bubo virginianus*). Presented by John C. Miller, Pottsville, Pennsylvania.
27. 11 Lizards (*Sceloporus undulatus*). Presented by Col. T. M. Bryan, Vincentown, New Jersey.
29. 1 Alligator (*Alligator mississippiensis*). Presented by John Farlle, Philadelphia.
31. 1 Red Fox (*Vulpes fulvus*). Presented by C. A. Roberts, Philadelphia.
- Sept. 1. 1 Water Snake (*Tropidonotus sipedon*), and 12 young. Presented by Lewis W. Sharpe, Hammonton, New Jersey.
4. 2 Capybaras (*Hydrochoerus capybara*).
 2 Bonnet Monkeys (*Macacus radiatus*).
 1 Rhesus Monkey (*M. erythræus*).
 1 Macaque Monkey (*M. cynomolgus*).
 5 Guinea Baboons (*Cynocephalus sphinx*).
 1 Douroucouli (*Nyctipithecus trivirgatus*).
 1 Pale Cebus (*Cebus flavescens*). } Purchased.
5. 1 large Alligator (*A. mississippiensis*). Purchased.
- 1 Glass Snake (*Pseudopus pallasii*). Presented by Capt. John H. Mortimer.
6. 5 Copperhead Snakes (*Ancistrodon contortrix*). Presented by Thrall Mumford, New Harmony, Indiana.
7. 1 Bison (*Bison americanus*). Born in Garden.
11. 1 Carrier Pigeon. Presented by J. N. Freudenburger, Philadelphia.
- 1 Copperhead Snake (*Ancistrodon contortrix*). Presented by W. S. Bissell, Pittsburg, Pennsylvania.
- 1 Golden-crowned Thrush (*Sciurus aurocapillus*). Presented by Miss Lillie Harpel, Philadelphia.
12. 2 Cinereus Vultures (*Vultur cinereus*).
 2 Griffon Vultures (*Gyps fulvus*).
 4 Barn Owls (*Strix flammea americana*).
 2 Angora Rabbits (*Lepus cunicula*). } Purchased.
14. 6 Weeper Capuchins (*Cebus capucinus*). Purchased.
16. 1 Little Brown Bat (*Vespertilio subulatus*). Presented by Alfred Reed, Hammonton, New Jersey.
17. 1 Brown Pelican (*Pelecanus fuscus*). Purchased.
18. 1 Rufous Rat-Kangaroo (*Hypsiprymnus rufescens*). Born in Garden.
 1 Pig-tailed Monkey (*Macacus nemestrinus*).
 1 Rhesus Monkey (*M. erythræus*). } Purchased.

1878.

- Sept. 20. 1 Hog-nosed Snake (*Heterodon platyrhinos*). Presented by Laud Elliott, Philadelphia.
24. 1 Hog-nosed Snake (*H. platyrhinos*). Presented by L. W. Sharpe, Hammonton, New Jersey.
- 1 Opossum (*Didelphys virginiana*). Presented by Ephraim Fenton, Philadelphia.
25. 2 Gray Lizards (*Sceloporus undulatus*). Presented by Alfred Reed, Hammonton, New Jersey.
26. 1 Black Snake (*Bascanion constrictor*). Presented by S. Fisher Corlies, Philadelphia.
27. 2 Hog-nosed Snakes (*Heterodon platyrhinos*). Presented by Thomas M. Williamson, Grand Tower, Jackson county, Illinois.
- 1 Water Snake (*Tropidonotus rhombifer*). Presented by Thomas M. Williamson, Grand Tower, Jackson county, Illinois.
28. 1 Brindled Gnu (*Catoblepas gorgon*). Purchased.
29. 1 Virginia Quail (*Ortyx virginianus*). Presented by John W. Faber.
30. 1 American Elk (*Cervus canadensis*). Born in Garden.
- 1 Milk Snake (*Coluber obsoletus confinis*). Presented by Dr. Pooley, Columbus, Ohio.
- Octo'r 1. 2 Whooping Cranes (*Grus americanus*). Purchased.
- 2 Sandhill Cranes (*G. canadensis*). Purchased.
- 1 Weeper Capuchin (*Cebus capucinus*). Presented by Master Miers Fisher Wright, U. S. S. "Enterprise."
- 1 Red Coati (*Nasua narica*). Presented by Master Miers Fisher Wright, U. S. S. "Enterprise."
- 1 American Elk (*Cervus canadensis*). Born in Garden.
4. 2 Land Tortoises (*Testudo tabulata*). Presented by Captain Samuel Hess, Bark "Jane Adelaide."
- 1 Hog-nosed Snake (*Heterodon platyrhinos*). Presented by C. E. Fowler, Hammonton, New Jersey.
5. 1 Gray Squirrel (*Sciurus carolinensis*). Presented by Worrill Wagner, Germantown, Pennsylvania.
- 1 pair Hoopoes (*Upupa epops*). Purchased.
- 1 Jackdaw (*Corvus monedula*). Purchased.
8. 1 Sickle-billed Curlew (*Numenius longirostris*). Purchased.
- 1 Rhesus Monkey (*Macacus erythræus*). Presented by Ingersoll Olmsted, Morristown, New Jersey.
9. 1 Night Hawk (*Chordeiles virginianus*). Presented.
14. 1 Opossum (*Didelphys virginiana*). Presented by Joseph Randolph, Philadelphia.
15. 4 Chameleons (*Chamæleon vulgaris*). Presented by Captain Sargent, American steamship "Indiana."
16. 1 Yarell's Curassow (*Crax carunculata*). Presented by Dr. M. L. Ruth, U. S. Navy.
21. 1 Coati (*Nasua narica*). Presented by George W. Wiltbank, Philadelphia.
22. 1 Mottled Owl (*Scops asio*). Presented by J. S. Walton, Philadelphia.
- 1 Hog-nosed Snake (*Heterodon platyrhinos*). Presented by M. H. Biggs, Hammonton, New Jersey.

1878.

- Octo'r 23. 1 Catbird (*Mimus carolinensis*).
 1 Green Linnet (*Ligurinus chloris*).
 1 Chaffinch (*Fringilla caelebs*). } Presented by Mrs. E. Collen,
 Philadelphia.
28. 2 White-footed Mice (*Hesperomys leucopus*). Presented by Charles
 Aldrich, Webster City, Iowa.
31. 1 Savannah Deer (*Cervus savannarum*). Born in Garden.
- Nov'r 4. 1 Opossum (*Didelphys virginiana*). Presented by E. T. Fenton, Phila-
 delphia.
- 1 Jackass Rabbit (*Lepus callotis*). Presented by Martin Goldsmith,
 Camden, New Jersey.
5. 1 Black Snake (*Bascanion constrictor*).
 1 Hog-nosed Snake (*Heterodon platyrhinos*). } Presented by
 Col. T. M. Bryan,
 4 Garter Snakes (*Eutaenia saurita*). } Vincentown, N. J.
- 1 Sulphur-crested Cockatoo (*Cacatua galerita*). Presented by Thomas
 Reeve, Philadelphia.
11. 1 Macaque Monkey (*Macacus nemestrinus*). Purchased.
12. 1 Mottled Owl (*Scops asio*). Presented by R. R. Corson, Philadelphia.
13. 1 Pied-billed Grebe (*Podilymbus podiceps*). Presented by Evan Kane,
 Kane, Pennsylvania.
14. 1 Red-tailed Hawk (*Buteo borealis*). Presented by George Vaux, Jr.,
 Philadelphia.
- 1 Least Bittern (*Ardetta exilis*). Presented by Mr. Hanson, Steward
 Reform Club, Philadelphia.
16. 1 Alligator (*Alligator mississippiensis*). Presented by C. H. Duhring,
 Philadelphia.
19. 1 Raccoon (*Procyon lotor*). Presented by W. C. Freeman, Lebanon, Pa.
21. 2 Virginia Deer (*Cervus virginianus*). Presented by Col. Thomas A.
 Scott, Pennsylvania Railroad, Philadelphia.
29. 1 Great Horned Owl (*Bubo virginianus*). Presented by John W. Dill,
 Camden, New Jersey.
8. 1 Green-winged Parrakeet (*Brotogerys virescens*). Presented by James
 M. Toy, Philadelphia.
13. 1 Gazelle (*Gazella dorcas*). Presented by Captain Earl English, U. S.
 Navy.

1879.

- Jan'y 1. 2 Sparrow Hawks (*Falco sparverius*). Presented by Thomas E. Taylor,
 Philadelphia.
2. 1 Pied-billed Grebe (*Podilymbus podiceps*). Presented by Arthur Dow-
 ner, Williamstown, New Jersey.
3. 2 Toulouse Geese. Presented by Col. David Taggart, Northumber-
 land, Pennsylvania.
9. 1 Yemen Sheep (*Ovis aries var.*). Born in Garden.
13. 1 Red-tailed Hawk (*Buteo borealis*). Presented by Abraham P. Bes-
 cherrer, Villanova, Pennsylvania.
17. 1 Mottled Owl (*Scops asio*). Presented by Isaac Reif, Philadelphia.
22. 1 Pig-tailed Monkey (*Macacus nemestrinus*). Purchased.
24. 1 Canada Goose (*Branta canadensis*). Purchased.
27. 2 Opossums (*Didelphys virginiana*). Presented by Albert R. Pyle,
 Philadelphia.

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- Jan'y 28. 1 Broad-winged Hawk (*Buteo pennsylvanicus*). Presented.
 7 Dingos (*Canis dingo*). Born in Garden.
29. 1 Red-tailed Hawk (*Buteo borealis*). Presented by Thomas Challender,
 Wrightstown, New Jersey.
- 1 Amphiuma (*Amphiuma means*). Presented by Dr. G. E. Manigault,
 Charleston, South Carolina.
- Feb'y 6. 1 Opossum (*Didelphys virginiana*). Presented by James A. Maroney,
 Philadelphia.
- 1 Bald Eagle (*Haliaetus leucocephalus*). Presented by Harry White-
 side, Philadelphia.
8. 1 Mink (*Putorius vison*). Presented by Miss Cora H. Annadower,
 Glassboro, New Jersey.
10. 1 Brown Lizard (*Eumeces fasciatus*). Presented by R. A. Rosenbaum,
 Georgetown, Delaware.
17. 1 Common Seal (*Phoca vitulina*). Purchased.
22. 1 Raccoon (*Procyon lotor*). Presented by W. R. Furness, Philadelphia.
27. 1 Garter Snake (*Eutaenia sirtalis*). Presented by Alfred Reed, Ham-
 monton, New Jersey.
28. 2 Raccoons (*Procyon lotor*). Presented by Mr. Manning, Philadelphia.

