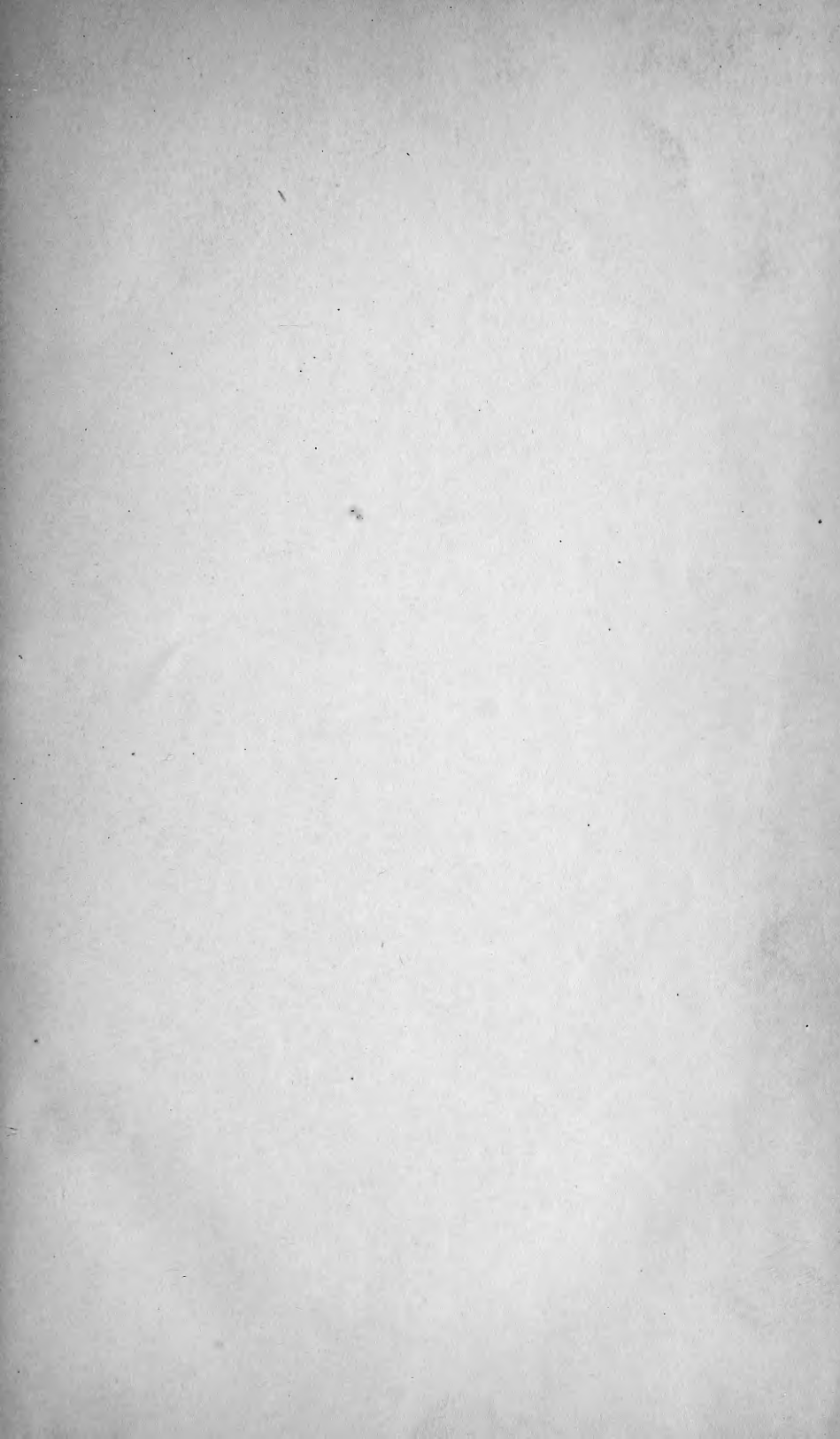


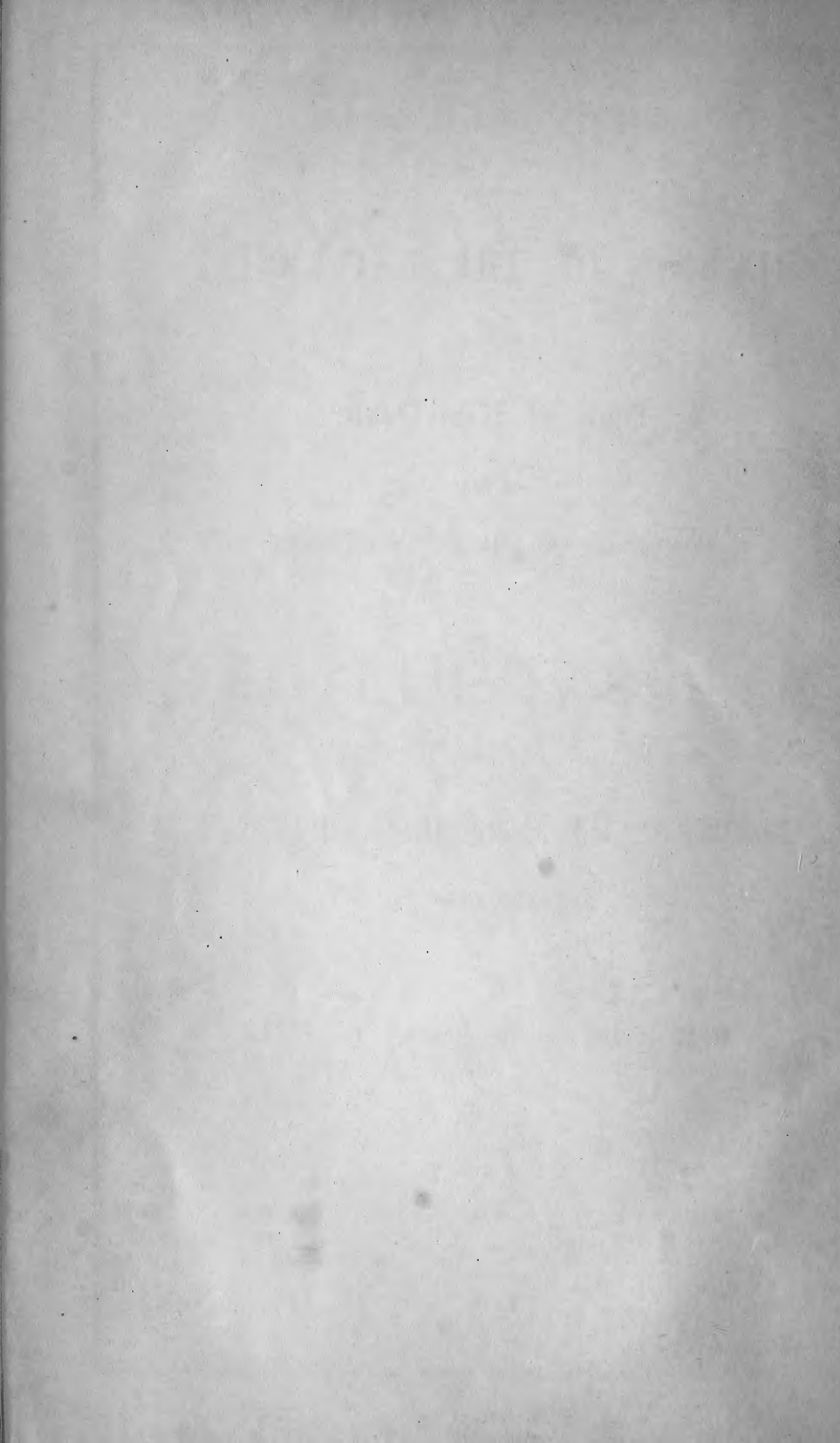
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SEVENTH ANNUAL REPORT

*Cover as they are*

OF THE

REGENTS OF THE UNIVERSITY

OF THE

State of New-York,

ON THE

CONDITION OF THE STATE CABINET

OF

NATURAL HISTORY,

AND THE

HISTORICAL AND ANTIQUARIAN COLLECTION

ANNEXED THERETO.

Made to the Senate, January 18, 1854.

ALBANY:

C. VAN BENTHUYSEN, PRINTER TO THE LEGISLATURE.

No. 407 Broadway.

1854.





LIBRARY OF THE  
MUSEUM OF NATURAL HISTORY  
GEORGETOWN, GEORGIA

SPENCER F. BAIRD.

SEVENTH ANNUAL REPORT

OF THE

REGENTS OF THE UNIVERSITY

OF THE

State of New-York,

ON THE

CONDITION OF THE STATE CABINET

OF

NATURAL HISTORY,

AND THE

HISTORICAL AND ANTIQUARIAN COLLECTION

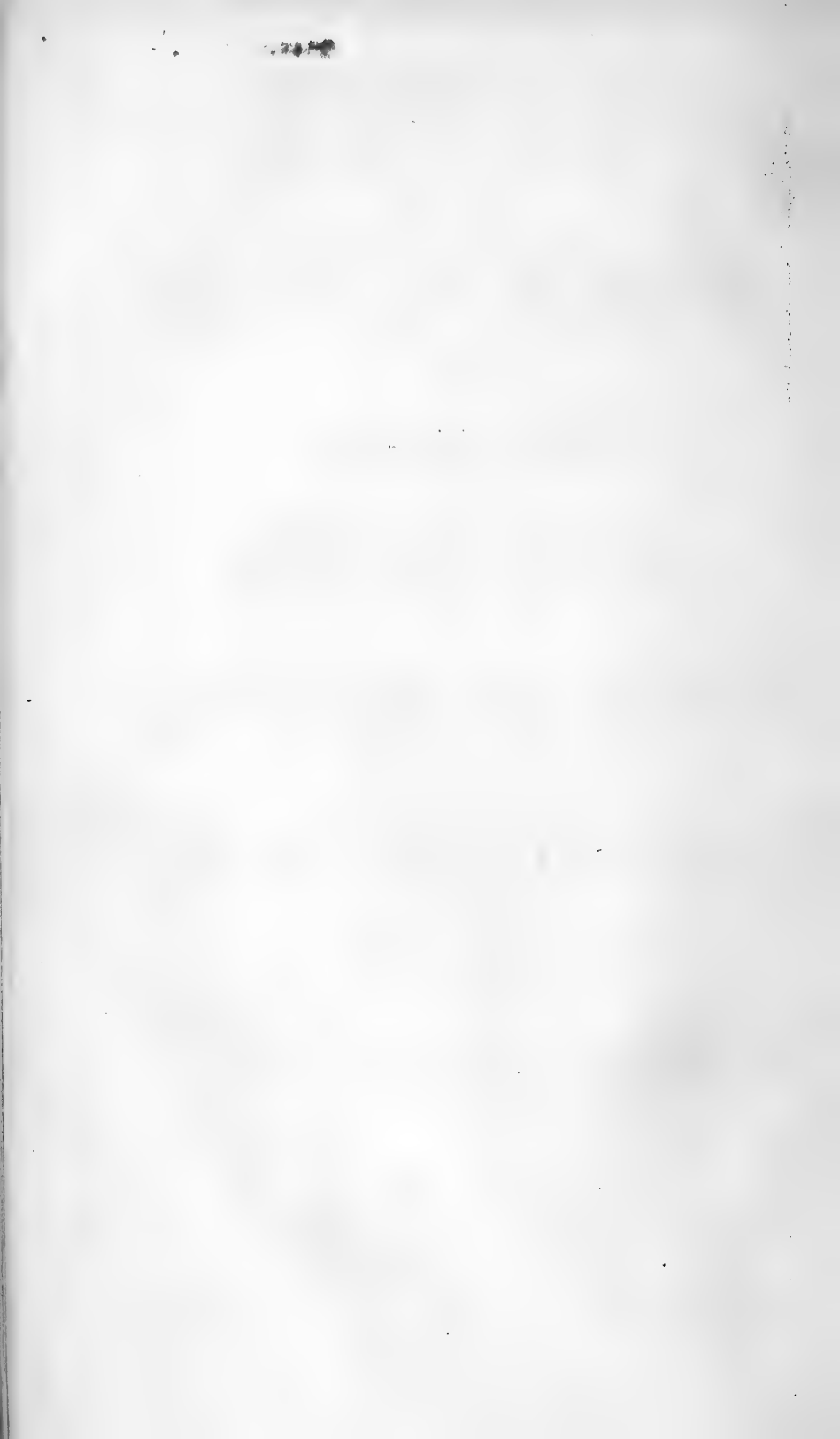
ANNEXED THERETO.

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Made to the Senate, January 18, 1854.  
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A L B A N Y :

C. VAN BENTHUYSEN, PRINTER TO THE LEGISLATURE,  
No. 407 Broadway.

.....  
1854.



# State of New-York.

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No. 50.

IN SENATE, JAN. 18, 1854.

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## SEVENTH ANNUAL REPORT.

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TO THE HON. SANFORD E. CHURCH,

Lieutenant-Governor, and President of the Senate.

SIR :

I HAVE the honor to transmit the Annual Report of the Regents of the University, on the State Cabinet of Natural History, and the Historical and Antiquarian Collection annexed thereto

I remain, very respectfully,

Your obedient servant,

G. Y. LANSING, *Chancellor.*

JANUARY 13, 1854.





## REGENTS OF THE UNIVERSITY, 1854.

---

GERRIT Y. LANSING, *Chancellor.*

JOHN GREIG, *Vice-Chancellor.*

HORATIO SEYMOUR, Governor, *ex officio.*

SANFORD E. CHURCH, Lieutenant-Governor, *ex officio.*

ELIAS W. LEAVENWORTH, Secretary of State, *ex officio.*

GULIAN C. VERPLANCK, LL.D.

JOHN K. PAIGE.

ERASTUS CORNING.

PROSPER M. WETMORE.

JOHN L. GRAHAM.

JOHN M'LEAN.

GIDEON HAWLEY, LL.D.

DAVID BUEL.

JAMES S. WADSWORTH.

JOHN V. L. PRUYN, LL.D.

JABEZ D. HAMMOND, LL.D.

JOHN L. O'SULLIVAN.

ROBERT CAMPBELL.

REV. SAMUEL LUCKEY, D.D.

ROBERT G. RANKIN.

PHILIP S. VAN RENSSELAER.

REV. JOHN N. CAMPBELL, D.D.

T. ROMEYN BECK, *Secretary.*

# STANDING COMMITTEES OF THE REGENTS,

SPECIALLY CHARGED WITH THE CARE OF THE STATE CABINET.

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1853.

HORATIO SEYMOUR, *Governor.*

HENRY S. RANDALL, LL.D., *Secretary of State.*

ERASTUS CORNING.

JOHN M'LEAN.

JAMES S. WADSWORTH.

---

1854.

HORATIO SEYMOUR, *Governor.*

ELIAS W. LEAVENWORTH, *Secretary of State.*

ERASTUS CORNING.

JOHN K. PAIGE.

JOHN L. O'SULLIVAN.

JOHN GEBHARD JUNIOR, *Curator.*

JAMES A. HURST, *Taxidermist.*

# REPORT.

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TO THE LEGISLATURE OF THE STATE OF NEW-YORK.

The Regents of the University

RESPECTFULLY REPRESENT :

That the additions made to the State Cabinet of Natural History, and the Historical and Antiquarian Collection annexed thereto, during 1853, have been numerous and valuable.

The publication of the Catalogue of its contents explained, more fully than could otherwise be done, the deficiencies still existing; and the Committee of the Regents, specially charged with its care, have endeavored to supply these gradually as well as permanently.

A few mammalia and birds have been furnished by the authorised collector, and also some by donation; but as these departments are comparatively complete, the number thus obtained has been small. Attention may be here directed to the plaster cast of one of the molar teeth of the American Elephant, presented by Dr. GREEN of Cortland county.

The collection of Fishes and Reptiles, however, from untoward circumstances occurring several years since, was small, imperfect, and not sufficiently named. Advantage was taken of an offer from the Smithsonian Institution at Washington, to furnish, at a liberal price, specimens of those native to our own State, duplicates of which had been collected, preparatory to a museum of those in the United States generally. The number purchased (63 fishes and 36 reptiles), properly named, and referring when necessary to the nomenclature used by Dr. DEKAY in his "Ichthyology of New-York," will be seen in the appendix to this report.

PROFESSOR SPENCER F. BAIRD, an eminent naturalist, has, also, by request, forwarded a monograph of the serpents found in this State

With the progress of investigation, new species have been discovered, existing errors pointed out, and the whole subject thus generally reviewed. Several years have now elapsed, since the State work on this branch was published; and the Regents have conceived it to be their duty to keep pace with the advancement of knowledge, and to furnish at a cheap rate what may be considered as a necessary appendage to the "Natural History of New-York." The two plates accompanying the memoir have been paid for from the annual appropriation, and 1000 copies of each obtained.

Dr. CHARLES MARTIN, of the United States Navy, has been a most liberal donor. The large number of Shells given by him, and obtained from distant localities, comprise many rare and valuable specimens. Thanks are especially due for his remembrance of the public institutions of his native State.

To the Botanical Collection (at present the most complete in the Cabinet), a few specimens have been furnished by Dr. FRANKLIN B. HOUGH.

In consequence of the death of Mr. MARSH, of Massachusetts, his museum, containing many of those remarkable impressions on stone which are deemed to be the foot-tracks of quadrupeds and birds, was offered for sale. The Curator was duly authorised to make purchases from these, and also of fossil fishes, to a moderate amount, and which he accomplished, and they are now in the Cabinet. From the localities in which they were obtained being so near to the State of New-York, it was judged proper to procure them as a complement to what is already considered as an American Geological Museum.

For probably the most curious single specimen presented, the Regents are indebted to the agency of M. VATTEMARE. It consists of the rock called *micaceous gneiss*, perforated by a small shell-fish, *Pholas dactylus*. The shell remains in the specimen. A more particular description will be found in the appendix. M. CALLIAUD, a French naturalist, the discoverer, is the donor.

The additions in the Department of Mineralogy are interesting. At the sale of Mr. MARSH's effects, a large number of the quartz crystals of Herkimer county, and which locality is in a measure exhausted, were secured. From Orange and Ulster counties, two

of the principal depositaries of rare minerals, a considerable number has been obtained. Some have been discovered subsequently to the publication of the "Mineralogy of New-York," and others are better specimens than those now in the Cabinet. Several beautiful ones from a mine lately opened at Ellenville, Ulster county, have also been purchased.

As appertaining to this department, the Regents take great pleasure in noticing the donation of Professor GEORGE H. COOK, late of the Albany Academy, and now of Rutgers College, New-Jersey. Engaged under the patronage of the State, in making scientific examinations relative to improvements in the manufacture of salt, he not long since made a visit to Europe, and, during his tour, inspected many of the salt-works in England, France, Holland and Belgium. He brought with him many specimens of rock-salt, and also of the manufactured article : a full series, both foreign and domestic, collected by himself and others, and amounting to 114 in number, have been presented by him. To increase their utility, he has communicated a paper, containing an analysis of most of those, which, to us, have peculiar interest as products of this State.

*Historical and Antiquarian Collection.*

Mr. WILLIAM C. BRYANT, of Albion, Orleans county, has presented some forty specimens of Indian Relics, found in the western part of this State.

A collection of Indian Remains, amounting to several hundred, from the Valley of the Connecticut, and obtained by the late Mr. MARSH, has also been purchased.

Valuable as is thus the increase of the State Museum, and interesting as it must prove to all visiting it, the Regents are again constrained to press on the attention of the Legislature the necessity of enlarged accommodations. In this way, alone, can a proper arrangement be ensured, and a full effect be given to the useful and honorable objects for which it was instituted.

By Order of the Regents of the University.

G. Y. LANSING, *Chancellor.*

T. ROMEYN BECK, *Secretary.*



## ACCOUNT CURRENT.

*The Regents of the University, in account current with the appropriation for preserving and increasing the "State Cabinet of Natural History, and the Historical and Antiquarian Collection annexed thereto," and for defraying the incidental expenses of the same.*

### DR.

1852,			
Dec. 10.	To balance of former appropriation remaining in bank (See Senate Documents of 1853, No. 16, p. 15) ..	\$169	11
1853,			
Jan. 4.	To annual appropriation for 1853 .....	800	00
Nov. 7.	To annual appropriation for 1854, as per supply bill (Session Laws of 1853, p. 1157) .....	800	00
		\$1769	11

### CR.

1853,			
Mar. 12.	By cash paid J. Gladding for glazing.....No. 1,	\$2	88
April 12.	By cash paid W. Boardman, case for preserved animals .....	6	15
“	By cash paid James Hall, black bear.....No. 3,	25	00
“	By cash paid John Paterson, for preparing a catalogue of the State Cabinet .....	40	00
“	By cash paid C. Van Benthuyzen, in part printing said catalogue .....	60	00
June 8.	By cash paid J. A. Hurst as taxidermist, salary six months from Dec. 1, 1852, to June 1, 1853 : No. 5,	100	00
“	By cash paid J. A. Hurst for animals preserved : male porcupine, red fox, opossum, and various birds and reptiles .....	90	50
Sept. 5.	By cash paid J. A. Hurst : salary from June 1 to Sept. 1, 1853.....No. 7,	50	00
Sept. 24.	By cash paid the estate of Dexter Marsh, for geological specimens (bird-tracks and fossil fishes),	\$177	50
	Collection of indian relics from the valley of the Connecticut .....	25	00
	Minerals and miscellaneous .....	2	95
	No. 8, —————	205	45

? Carried forward....

		[Brought forward....	\$
1853,			
Oct. 1.	By cash paid for travelling expenses of Mr. Gebhard, in making the above purchase, and transportation of the same.....No. 9,		27 65
"	By cash paid contingent expenses (3 vouchers), No. 10,		15 00
"	By cash paid Chalmers' Algæ Scotiæ....(No. 11,		5 00
Oct. 25.	By cash paid Silas C. Horton, for a collection of minerals from Orange county.....No. 12,		50 00
"	By cash paid B. P. Johnson, for a glass case to contain Dr. Martin's collection of shells....No. 13,		15 00
Dec. 10.	By cash paid contingent expenses; bottles for Prof. Cook's salt collection, and freight.....No. 14,		18 79
Dec. 15.	By cash paid for minerals from Ellenville, Ulster county.....No. 15,		30 00
"	By cash paid Prof. Baird (Smithsonian Institution, Washington) and others, for a collection of fishes found in the State of New-York, glass jars and alcohol..... \$191 25		
	For drawing and engraving and printing 1000 copies of two plates of the reptiles found in the State of New-York.... 50 00		
	(For the annual report of 1854) No. 16,-----		241 25
Dec. 31.	By cash for contingent expenses (5 vouchers): alcohol and glass jars for fishes, freight, etc. No. 17,		25 23
	By balance to new account.....		761 21
			\$1769 11

(COPY.)

ALBANY CITY BANK. *January 4, 1854.* I certify that there is the sum of seven hundred and sixty-one 21-100 dollars standing to the credit of the State Cabinet of Natural History, on the books of this bank.

(Signed) H. H. MARTIN, *Cashier.*

We have examined the above account, and find it correct. The payments have been made by order of the standing committee, and are accompanied with proper vouchers.

HORATIO SEYMOUR,  
ERASTUS CORNING,  
HENRY S. RANDALL.

## CONTENTS OF THE APPENDIX.

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- A. Catalogue of quadrupeds, birds, reptiles, amphibians and fishes, added to the State Cabinet from January 1, 1853, to January 1, 1854.
  - B. Catalogue of mollusca, crustacea, etc. do. do.
  - C. Additions to the botanical department, do. do.
  - D. Catalogue of minerals, geological specimens and fossils, do. do.
  - E. Additions to the historical and antiquarian collection, do. do.
  - F. Communication from Professor COOK, on the specimens of salt and salt water presented by him, with an analysis of most of the same.
  - G. On the Serpents of New-York, with a notice of a species not hitherto included in the Fauna of the State : By SPENCER F. BAIRD.
- 
- 1. Chronological order of publication of the volumes of the Natural History of New-York.
  - 2. Materials received at the State Geological Rooms, towards the volumes now printing on Insects and Palæontology.

# Appendix.

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A

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## CATALOGUE

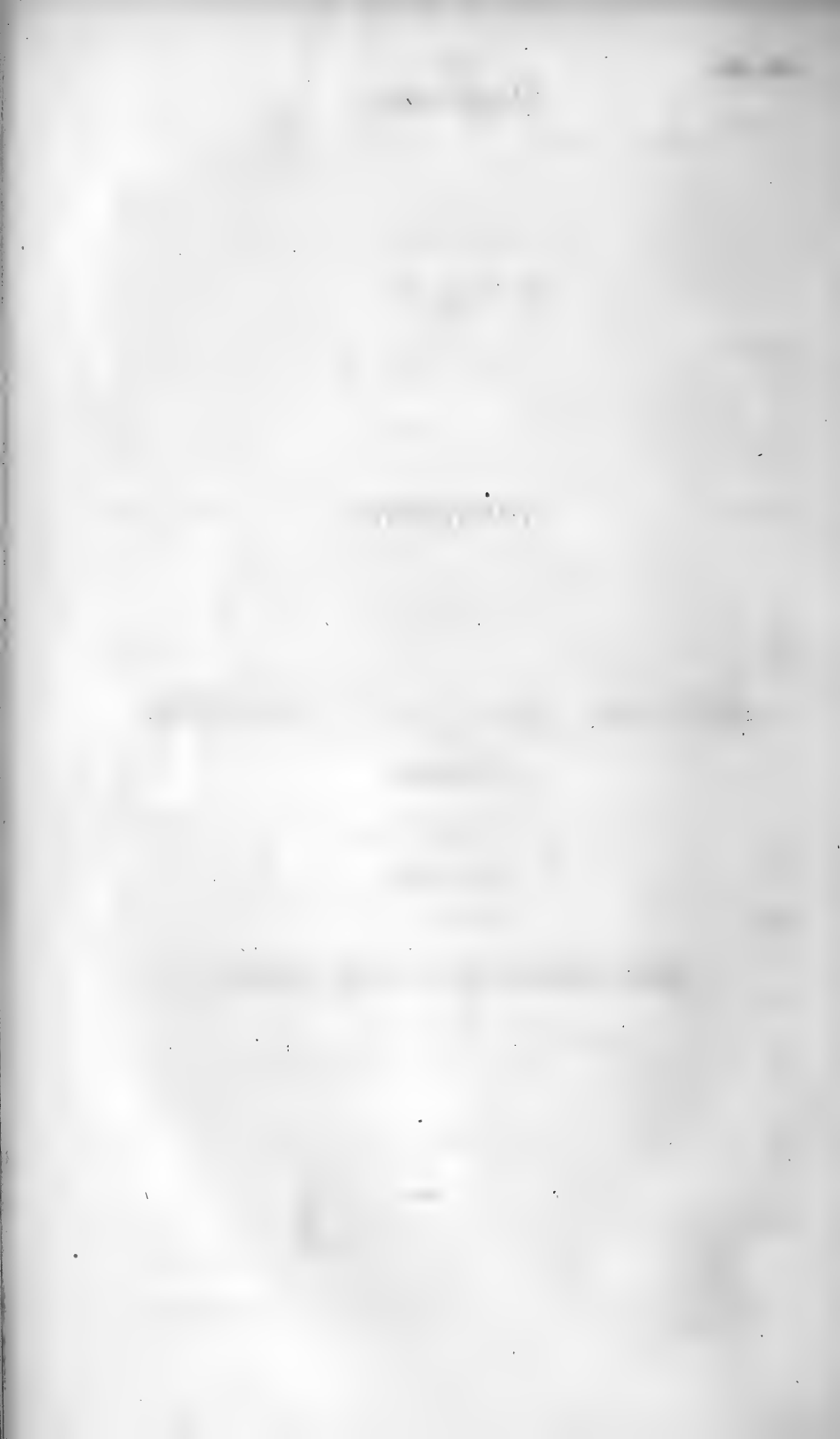
OF THE

QUADRUPEDS, BIRDS, REPTILES, AMPHIBIANS,  
FISHES, &c.

ADDED TO THE

STATE CABINET OF NATURAL HISTORY,

FROM JANUARY 1, 1853, TO JANUARY 1, 1854.





# MAMMALIA.

## ORDER MARSUPIATA.

### FAMILY DIDELPHIDÆ.

DIDELPHIS VIRGINIANA, *American Opossum* (female). - - - - ZOOLOGY — Part I. p. 3

## ORDER CARNIVORA

### FAMILY MUSTELIDÆ.

PUTORIUS NOVEBORACENSIS, *New-York Ermine*. - - - - 36  
(Spring dress.) Presented by HERMAN WENDELL, M.D., of Albany.

### FAMILY CANIDÆ.

VULPES FULVUS, *Red Fox* (male). - - - - 44

## ORDER RODENTIA.

### FAMILY SCIURIDÆ.

SCIURUS VULPINUS, *Fox Squirrel*. - - - - 59  
This specimen was shot in Hoosick, Rensselaer county, by ISAAC B. LOTTRIDGE, and by him presented to the State Cabinet.

### FAMILY HYSTRICIDÆ.

HYSTRIX HUDSONIUS, *North-American Porcupine* (male). - 77  
Very large.

## ORDER UNGULATA.

### FAMILY ELEPHANTIDÆ.

ELEPHAS AMERICANUS, *American Elephant*. - - - - 101  
Plaster cast of one of the molar teeth. Presented by CALEB GREEN, M.D., of Homer, Cortland county, N. Y.  
The following is a copy of the letter of Dr. GREEN, accompanying the specimen :

HOMER, February 1, 1853.

MR. GEBHARD :

DEAR SIR — I send you, to be placed in the State Cabinet of Natural History, a cast of one of the molar teeth of the *Elephas americanus*. The original was found, in the summer of 1847, in the bank of a small stream about two and a half miles northwest of Homer. The stream had washed away a part of the bank, and left a part of the tooth exposed, lying about twenty inches below the surface, in an alluvial formation resting on a gravel base. The tooth is in a good state of preservation, the grinding surface of the crown retaining its polish, etc. The original is in the cabinet of Cortland Academy, in this village.

Respectfully yours,

C. GREEN.

## BIRDS.

## ORDER ACCIPITRES.

## FAMILY STRIGIDÆ.

- SURNIA NYCTEA*, *Snowy Owl*. - - - - - ZOOLOGY — PART II.  
 Presented by THURLOW WEED, esquire, of Albany. - - - - - p. 22

## ORDER GALLINÆ.

## FAMILY PHASIANIDÆ.

- MELEAGRIS GALLOPAVO*, *Wild Turkey* (male). - - - - - 199  
 Presented by THURLOW WEED, esquire, of Albany.  
 In addition to the above, Mr. WEED has also presented to the Cabinet  
 two beautiful specimens of the English Pheasant.

## ORDER GRALLÆ.

## FAMILY GRUIDÆ.

- ARDEA LEUCE*, *Great White Heron*. - - - - - 220  
 This specimen was taken at Schodack, Rensselaer county, by HENRY  
 GARDNER, and by him presented to the Cabinet.

## FAMILY SCOLOPACIDÆ.

- NUMENIUS LONGIROSTRIS*, *Long-billed Curlew* (male). - - - 232

## ORDER LOBIPEDES.

## FAMILY PODICIPIDÆ.

- PODICEPS RUBRICOLLIS*, *Red-necked Grebe* (male). - - - 276

## AMPHIBIA.

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### FAMILY SALAMANDRIDÆ.

**SALAMANDRA SUBVIOLACEA,** *Violet-colored Salamander* (male). - p. 74 ZOOLOGY — Part III.

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## FISHES.

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### FAMILY PLANIDÆ.

**ACHIRUS MOLLIS,** *New-York Sole.* - - - - - p. 303 ZOOLOGY — Part IV.

This specimen was caught in the Hudson river, near the city of Albany, on the 18th day of January 1853, by ISAAC V. FRYER, and by him presented to the State Cabinet.

From R. P. STEVENS, of Ceres, Allegany county, New-York.

Two species of COTTUS, from a small tributary of the Oswego creek, town of Little-Genesee, Allegany county (N.Y.), not described in DEKAY's Zoology.

The following is Mr. STEVENS's communication on the subject :

## CERES, Allegany County, N. Y.

July 7, 1852.

MR. GEBHARD, Curator of the State Museum.

DEAR SIR — In the work of the late Dr. DEKAY on the Zoology of the State, he describes only one species of *COTTUS* (*Cottus gracilis* of HECKEL & CHARLES GIRARD), under the Genus URANIDEA, viz. *Uranidea quiescens*, the Little Star-gazer (See Zoology, Part iv, p. 61). I have found two in the tributaries of the Allegany river in this county. One is probably the *C. wilsonii*, yet appears to be somewhat different. It has three pairs of tubular nostrils, or two with one pair of mucous follicles, very large, in the same line. Pectorals with fourteen rays : the longest, viz. 4th, 5th and 6th, counting from above, bifid; lower ones mucronate, and turned upwards; dorsal 8 – 17, the 10th and 11th bifid; anal 13, caudal 13, and much divided at their extremities. Color, around the snout and edges of the head, very black; head, a little lighter; body a shade or two lighter, going towards the tail. Underneath, the color is silvery grey, with borders of mouth darker. First dorsal beautifully tipped with red.

The next species I am not able yet to identify with any described by GIRARD. It is very different from the above in color, being much lighter : nostrils not tubular, only two; no rays of the fins bifid. A specimen before me, nearly three inches in length, has the following characteristics and measurements: Head 0·6 long, greatest width 0·7; isthmus 0·3; eyes large, nearly oval 0·1, bright and just over the angles of the mouth; interorbital space 0·3. Tail, length 0·5: pectoral little over 0·4; anal little over 0·7; branchial 0·7; dorsal little over 0·3 – 0·9. Vent about midway from head to base of caudal rays. Greatest width of body at the origin of the branchial, 0·6; at the origin of the tail, 0·1; dorsal 7 — space 0·1; second dorsal 17, branchial 14, pectoral 5, anal 12; caudal pectoral reach to the vent. The propectacular spine has a broad base, wider than long, delicately tipped, turning backwards and upwards: rudiments of another, a little below; opercular spine delicate and subdermous. Color lightish grey; on back, darker; on head, very light, almost white. Under the lens, the color seems caused by minute black points on a white ground. First dorsal dark, nearly black, and delicately tipped with rufous.

Yours truly, R. P. STEVENS.

APRIL 25, 1853.

P. S. I send by Prof. JAMES HALL a suit of specimens, described as above, young and old. Of the *C. wilsonii*, there is not a specimen of full age and growth.

## LIST OF FISHES AND REPTILES,

INHABITING THE STATE OF NEW-YORK;

SENT TO THE NEW-YORK STATE CABINET OF NATURAL HISTORY,  
BY THE SMITHSONIAN INSTITUTION, IN DECEMBER 1853.

## FISHES.

ZOOLOGY — Part IV.

- 1 PERCA FLAVESCENS, Cuv. et Val. *The American Yellow Perch.*  
Dekay's New-York Fauna, page 3, plate 1, fig. 1. Oswego; Seneca lake;  
Lake Sanford; Lake Champlain; Lake Erie, S. F. BAIRD; and Saint-  
Lawrence, near Ogdensburgh, W. E. GRIEST.
- 2 PILEOMA SEMIFASCIATUM. *The Champlain Pickering.*  
Dekay's New-York Fauna, pa. 16, pl. 50, f. 162. Lake Champlain,  
S. F. B.
- 3 PERCOPSIS PELLUCIDA, Thomps.  
Elizabethtown, Essex county, N. Y. S. F. B.
- 4 LABRAX LINEATUS, Cuv. et Val. *The Striped Sea-bass.*  
Dekay's New-York Fauna, pa. 7, pl. 1, f. 3. New-York bay. S. F. B.
- 5 LABRAX MULTILINEATUS, Kirtl.  
Lake Erie. S. F. B.
- 6 LUCIOPERCA AMERICANA, Cuv. et Val. *The Yellow Pike-perch.*  
Dekay, New-York Fauna, pa. 17, pl. 50, f. 163. Lake Champlain, S. F. B.
- 7 LUCIOPERCA CANADENSIS, H. Smith.  
Lake Erie. S. F. B.
- 8 GRYSTES ——— ? Lake Erie. S. F. B.
- 9 GRYSTES FASCIATUS, Agass. *The Black Freshwater Bass.*  
*Centrarchus fasciatus*, Dekay, New-York Fauna, pa. 28, pl. 3, f. 8.  
Lake Erie, Lake Champlain, and New-York State. S. F. B.
- 10 CENTROPRISTIS NIGRICANS, Cuv. et Val. *The Black Sea-bass.*  
Dekay, New-York Fauna, pa. 24, pl. 2, f. 5. New-York bay. S. F. B.
- 11 CENTRARCHUS ÆNEUS, Cuv. et Val. *Freshwater Bass.*  
Dekay, New-York Fauna, pa. 27, pl. 2, f. 4. Lake Erie; Lake Cham-  
plain; Lake George; Geneva, N. Y. S. F. B.

- 12 CENTRARCHUS HEXACANTHUS, Val. Lake Erie. S. F. B.
- 13 POMOTIS VULGARIS, Cuv. et Val. *The Common Pond-fish.*  
Dekay, New-York Fauna, pa. 31, pl. 51, f. 166. Lake Erie, Lake Champlain and Lake George. S. F. B.
- 14 POMOTIS MEGALOTIS? Rafin. Lake George. S. F. B.
- 15 POMOTIS APPENDIX? Dekay. *The Black-eared Pond-fish.*  
Dekay, New-York Fauna, pa. 32. Coxsackie, N. Y. S. F. B.
- 16 COTTUS GRACILIS, Heck. *The Little Stargazer.*  
*Uranidea quiescens*, Dekay, New-York Fauna, pa. 61, pl. 5, f. 14.  
Root's tavern, Hudson-river basin. S. F. B.
- 17 TRIGLOPSIS THOMPSONI, Girard. Lake Ontario. S. F. B.
- 18 GASTEROSTEUS INCONSTANS, Kirtl. Oswego. S. F. B.
- 19 CORVINA OSCULA, Cuv. et Val. *The Lake Sheephead.*  
Dekay, New-York Fauna, pa. 73, pl. 21, f. 63. Lake Erie. S. F. B.
- 20 LEIOSTOMUS OBLIQUUS, Dekay. *The Lafayette.*  
Dekay, New-York Fauna, pa. 60, pl. 69, f. 195. New-York bay. S. F. B.
- 21 UMBRINA ALBURNUS, Cuv. et Val. *The King-fish.*  
Dekay, New-York Fauna, pa. 78, pl. 7, f. 20. New-York bay. S. F. B.
- 22 PAGRUS ARGYROPS, Cuv. et Val. *The Big Porgee.*  
Dekay, New-York Fauna, pa. 95, pl. 9, f. 25. New-York bay. S. F. B.
- 23 TEMNODON SALTATOR, Cuv. et Val. *The Blue-fish.*  
Dekay, New-York Fauna, pa. 130, pl. 26, f. 81. New York bay. S. F. B.
- 23 bis. PEPRILUS TRIACANTHUS, Storer. *The Short-finned Harvest-fish.*  
*Rhombus triacanthus*, Dekay, New-York Fauna, pa. 137, pl. 26, f. 80.  
New-York bay. S. F. B.
- 24 BATRACHUS TAU, Cuv. et Val. *The Common Toad-fish.*  
Dekay, New-York Fauna, pa. 168, pl. 28, f. 80. New-York bay. S. F. B.
- 25 CTENOLABRUS CERULEUS, Dekay. *The Common Bergall.*  
Dekay, New-York Fauna, pa. 172, pl. 29, f. 93. New-York bay. S. F. B.
- 26 TAUTOGA AMERICANA, Dekay. *The New-York Tautog.*  
Dekay, New-York Fauna, pa. 175, pl. 14, f. 39. New-York bay. S. F. B.
- 27 PIMELODUS CATUS, Cuv. et Val. *The Common Catfish.*  
Dekay, New-York Fauna, pa. 182, pl. 37, f. 119. Summerville, Saint-Lawrence county, N. Y. Dr. F. B. HOUGH.
- 28 PIMELODUS GRACILIS, Hough. *Common Catfish.*  
This species occurs in the Oswegatchie, Indian and other rivers tributary to the St. Lawrence, and in several of the smaller lakes of St. Lawrence and Jefferson counties. Dr. F. B. HOUGH.

- 29 *SCLEROGNATHUS CYPRINUS*, Val. *The Long-finned Chubsucker.*  
*Labeo cyprinus*, Dekay, New-York Fauna, pa. 194, pl. 77, f. 243. Lake Erie. S. F. B.
- 30 *CATOSTOMUS MELANOPS*, Rafin. Lake Erie. S. F. B.
- 31 *CATOSTOMUS COMMUNIS*? Lesueur. Lake Erie. S. F. B.
- 32 *CATOSTOMUS COMMUNIS*, Lesu. *The Common Sucker.*  
 Dekay, New-York Fauna, pa. 196, pl. 33, f. 106. Otsego lake. S. F. B.
- 33 *CATOSTOMUS AUREOLUS*, Lesu. *The Mullet Sucker.*  
 Dekay, New-York Fauna, pa. 201, pl. 42, f. 133. Lake Erie. S. F. B.
- 34 *CATOSTOMUS FLOREALIS*, new spec.  
 Elizabethtown, Essex county, N. Y. S. F. B.
- 35 *CATOSTOMUS GIBBOSUS*, Lesu. *The Gibbous Chubsucker.*  
*Labeo gibbosus*, Dekay, New-York Fauna, pa. 194, pl. 32, f. 101. Lake Erie and Albany, N. Y. S. F. B.
- 36 *CATOSTOMUS TERES*, Lesu. Lake Champlain. S. F. B.
- 37 *CATOSTOMUS PALLIDUS*, Dekay. *The Pale Sucker.*  
 Dekay, New-York Fauna, pa. 200, pl. 33, f. 104. Coxsackie; Trout brook, emptying into Lake George; Four-mile creek, Oswego; Root's tavern, Hudson-river basin. S. F. B.
- 38 *LEUCISCUS AMERICANUS*, Storer. *The New-York Shiner.*  
*Stilbe chrysoleucas*, Dekay, New-York Fauna, pa. 204, pl. 29, f. 91. Cayuga lake, W. HOPKINS; and Lake Champlain, S. F. B.
- 39 *LEUCISCUS PULCHELLUS*, Storer. *The Roach Dace.*  
 Dekay, New-York Fauna, p. 208. St. Lawrence, below Ogdensburgh. S. F. B.
- 40 *LEUCISCUS CORNUTUS*, Dekay. *The Red-fin.*  
 Dekay, New-York Fauna, pa. 207, pl. 29, f. 92. Lake Champlain, and Four-mile creek, Oswego. S. F. B.
- 41 *LEUCISCUS HUDSONICUS*, Dekay. *The Spawneater.*  
 Dekay, New-York Fauna, pa. 206, pl. 34, f. 109. Geneva, N. Y. S. F. B.
- 42 *LEUCISCUS NITIDUS*, Dekay. *The Shining Dace.*  
 Dekay, New-York Fauna, pa. 209, pl. 34, f. 105. Lake Champlain. S. F. B.
- 43 *LEUCISCUS ROSACEUS*, new spec.  
 Root's tavern, Hudson-river basin. S. F. B.
- 44 *LEUCISCUS PALEI*, new spec.  
 Elizabethtown, Essex county, N. Y. S. F. B.
- 45 *EXOGLOSSUM LESUEURIANUM*, Rafin.  
 Coxsackie, N. Y.; Root's tavern, Hudson river; Geneva, N. Y., and Sacket's-harbor, Lake Ontario. S. F. B.]



- 46 MELANURA FUSCA, Agass. ms. *The Champlain Minnow.*  
*Hydrargira atricauda*, Dekay, New-York Fauna, pa. 220. Burlington,  
 Lake Champlain. Rev. Z. THOMPSON.
- 47 MELANURA PYGMÆA, Agass. ms. *The Pigmy Dace.*  
*Leuciscus pygmæus*, Dekay, New-York Fauna, pa. 214, pl. 42, f. 134.  
 Rockland county. J. G. BELL.
- 48 MELANURA LINEATA, Agass. ms.  
 Oswego, N.Y. S. F. B.
- 49 SALMO FONTINALIS, Mitch. *The Brook Trout.*  
 Dekay, New-York Fauna, pa. 235, pl. 38, f. 120. Madrid, N. Y. E.  
 A. DAYTON.
- 50 OSMERUS VIRIDESCENS, Lesu. *The American Smelt.*  
 Dekay, New-York Fauna, pa. 243, pl. 39, f. 124. N. York bay. S. F. B.
- 51 COREGONUS ALBUS, Lesu. *The White-fish.*  
 Dekay, New-York Fauna, pa. 247, pl. 60, f. 198. Lake Erie. S. F. B.
- 52 COREGONUS OTSEGO, Dekay. *The Otsego Shad-salmon.*  
 Dekay, New-York Fauna, pa. 248. Otsego lake. S. F. B.
- 53 CHATÆSSUS ELLIPTICUS, Kirtl. Lake Erie. S. F. B.
- 54 HYODON TERGISUS, Lesu. *The River Mooneye.*  
 Dekay, New-York Fauna, pa. 265, pl. 41, f. 130. Lake Erie. S. F. B.
- 55 AMIA CANINA, Val. Lake Erie. S. F. B.
- 56 LEPIDOSTEUS HURONENSIS, Rich. Lake Erie. S. F. B.
- 57 LOTA MACULOSA, Rich. *The Spotted Burbot.*  
 Dekay, New-York Fauna, pa. 284, pl. 52, f. 168. Lake Erie, Dr. KIRTL-  
 LAND; and Madrid, N.Y., E. A. DAYTON.
- 58 PLATESSA PLANA, Storer. *The New-York Flatfish.*  
 Dekay, New-York Fauna, pa. 295, pl. 48, f. 154, and pl. 49, f. 158.  
 New-York bay. S. F. B.
- 59 PLATESSA OBLONGA, Mitch. *The Oblong Flounder.*  
 Dekay, New-York Fauna, pa. 299, pl. 48, f. 156. N. York bay. S. F. B.
- 60 RHOMBUS MACULATUS, Gd. ms. *The Spotted Turbot.*  
*Pleuronectes maculatus*, Dekay, New-York Fauna, pa. 301, pl. 47, f.  
 151. New-York bay. S. F. B.
- 61 ACHIRUS MOLLIS, Cuv. *The New-York Sole.*  
 Dekay, New-York Fauna, pa. 303, pl. 49, f. 159. N. York bay. S. F. B.
- 62 ANGUILLA ROSTRATA? Dekay. *The Beaked Eel.*  
 Dekay, New-York Fauna, p. 312. Madrid, N.Y. E. A. DAYTON.
- 63 PETROMYZON ARGENTATUS, Kirtl. Lake Erie. S. F. B.

## REPTILES.

ZOOLOGY — Part III.

## Chelonians.

- 1 TRIONYX FEROX, Say. *The Soft-shelled Turtle.*  
 Dekay, New-York Fauna, pa. 6, pl. 6, f. 11. Foxburg, Pa. S. F. B.
- 2 EMYS MUHLENBERGII, Lee. *Muhlenberg's Tortoise.*  
 Dekay, New-York Fauna, pa. 17, pl. 8, f. 15. Pennsylvania. S. F. B.

## Ophidians.

- 3 AGKISTRODON CONTORTRIX, B. & G. *The Copperhead.*  
*Trionocephalus contortrix*, Dekay, New-York Fauna, pa. 53, pl. 9, f. 18. Cleveland, Ohio. Dr. KIRTLAND.
- 4 HETERODON PLATYRHINOS, Latr. *The Hog-nosed Snake.*  
 Dekay, New-York Fauna, pa. 51, pl. 13, f. 28. York county, Pa. S. F. B.
- 5 EUTAINIA SIRTALIS, B. & G. *The Striped Snake.*  
*Tropidonotus tania*, Dekay, New-York Fauna, pa. 43, pl. 13, f. 27. Westport, N. Y. S. F. B.
- 6 EUTAINIA SAURITA, B. & G. *The Ribbon-snake.*  
*Leptophis saurita*, Dekay, New-York Fauna, pa. 47, pl. 11, f. 24. Westport, N. Y. S. F. B.
- 7 NERODIA SIPEDON, B. & G. *The Watersnake.*  
*Tropidonotus sipedon*, Dekay, New-York Fauna, pa. 42, pl. 14, f. 31. Carlisle, Pa. S. F. B.
- 8 REGINA LEBERIS, B. & G. *The Yellow-bellied Snake.*  
*Tropidonotus leberis*, Dekay, New-York Fauna, pa. 45, pl. 11, f. 23. Carlisle, Pa. S. F. B.
- 9 BASCANION CONSTRICTOR, B. & G. *The Blacksnake.*  
*Coluber constrictum*, Dekay, New York Fauna, pa. 35, pl. 10, f. 20. Carlisle, Pa. S. F. B.
- 10 OPHIBOLUS EXIMIUS, B. & G. *The Milksnake.*  
*Coluber eximius*, Dekay, New-York Fauna, pa. 38, pl. 12, f. 25. Westport, N. Y. S. F. B.
- 11 CELUTA AMENA, B. & G. *The Red-snake.*  
*Calamaria amena*, Dekay, New-York Fauna, p. 49. Carlisle, Pa. S. F. B.
- 12 CHLOROSOMA VERNALIS, B. & G. *The Grass-snake.*  
*Coluber vernalis*, Dekay, New-York Fauna, pa. 40, pl. 11, f. 22. Westport, N. Y. S. F. B.
- 13 DIADOPHIS PUNCTATUS, B. & G. *The Ring-snake.*  
*Coluber punctatus*, Dekay, New-York Fauna, pa. 39, pl. 14, f. 29. Carlisle, Pa. S. F. B.

- 14 STORERIA DEKAYI, B. & G. *The Small Brown-snake.*  
*Tropidonotus dekayi*, Storer. Dekay, New-York Fauna, pa. 49, pl. 14,  
 f. 30. Massachusetts. S. F. B.
- 15 STORERIA OCCIPITO-MACULATA, B. & G.  
 Adirondack, N.Y., ROBERT CLARK; Salem, Washington county, N.Y.,  
 ASA FITCH, M.D.

### Saurians.

- 16 PLESTIODON FASCIATUS, Holbr. *The Blue-tailed Skink.*  
*Scincus fasciatus*, Dekay, New-York Fauna, pa. 29, pl. 8, f. 17. Mis-  
 sissippi. Dr. SHUMARD.

### Batrachians.

- 17 HYLODES GRILLUS, Holbr. *The Cricket Hylodes.*  
 Dekay, New-York Fauna, pa. 70, pl. 22, f. 61. Carlisle, Pa. S. F. B.
- 18 HYLA PICKERINGII, B. & G. *Pickering's Hylodes.*  
*Hylodes pickeringii*, Dekay, New-York Fauna, pa. 69, pl. 20, f. 51.  
 Carlisle, Pa. S. F. B.
- 19 AMBLYSTOMA PUNCTATUM, Bd.  
 Louisiana. JAMES FAIRIE.
- 20 AMBLYSTOMA LURIDUM, Bd.  
 Racine, Wisc. Dr. P. R. HOY.
- 21 AMBLYSTOMA OPACUM, Bd.  
 Louisiana. JAMES FAIRIE.
- 23 DESMOGNATHUS PISCUS, Bd.  
 Carlisle, Pa. S. F. B.
- 24 HEMIDACTYLUM SCUTATUM, Toch.  
 Illinois. R. W. KENNICUTT.
- 25 PLETHODON GLUTINOSUS, Toch. *The Blue-spotted Salamander.*  
*Salamandra glutinosa*, Dekay, New-York Fauna, pa. 81, pl. 17, f. 42.  
 Carlisle, Pa. S. F. B.
- 26 PLETHODON ERYTHRONOTUS, Bd. *The Red-backed Salamander.*  
*Salamandra erythronota*, Dekay, New-York Fauna, pa. 75, pl. 16, f.  
 38. Ceres, N.Y. Dr. R. P. STEVENS.
- 27 PLETHODON CINEREUS, Toch. Carlisle, Pa. S. F. B.
- 28 PSEUDOTRITON SALMONEUS, Bd. *The Salmon-colored Salamander.*  
*Salamandra salmonea*, Dekay, New-York Fauna, pa. 76, pl. 16, f. 39.  
 Carlisle, Pa. S. F. B.
- 29 PSEUDOTRITON RUBER, Toch. *The Red Salamander.*  
*Salamandra rubra*, Dekay, New-York Fauna, pa. 80, pl. 17, f. 43.  
 Carlisle, Pa. S. F. B.

- 30 NOTOPHTHALMUS VIRIDESCENS, Bd. *The Crimson-spotted Triton.*  
*Triton millepunctatus*, Dekay, New-York Fauna, pa. 84, pl. 15, f. 34.  
 Carlisle, Pa. S. F. B.
- 31 NOTOPHTHALMUS MINIATUS, Rafin. *The Yellow-bellied Salamander.*  
*Salamandra symmetrica*, Dekay, New-York Fauna, pa. 73, pl. 15, f. 33.  
 Ceres, N.Y. Dr. R. P. STEVENS.
- 32 SPELERPES LONGICAUDA, Bd. *The Long-tailed Salamander.*  
*Salamandra longicauda*, Dekay, New-York Fauna, pa. 78, pl. 17, f. 41.  
 Carlisle, Pa. S. F. B.
- 33 SPELERPES BILINEATA, Bd. *The Striped-back Salamander.*  
*Salamandra bilineata*, Dekay, New-York Fauna, pa. 79, pl. 23, f. 67.  
 Westport, N.Y. S. F. B.
- 34 MENOPOMA ALLEGHANIENSIS, Barnes. *The Allegany Hellbender.*  
 Dekay, New-York Fauna, pa. 89, pl. 18, f. 44. Foxburg, Pa. S. F. B.
- 35 MENOBRANCHUS MACULATUS, Barnes.  
 Burlington, Vt. Rev. Z. THOMPSON.
- 36 MENOBRANCHUS LATERALIS, Harl. *The Banded Proteus.*  
 Dekay, New-York Fauna, pa. 87, pl. 18, f. 45. Foxburg, Pa. SAMUEL  
 FOX.

Appendix.

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B.

CATALOGUE

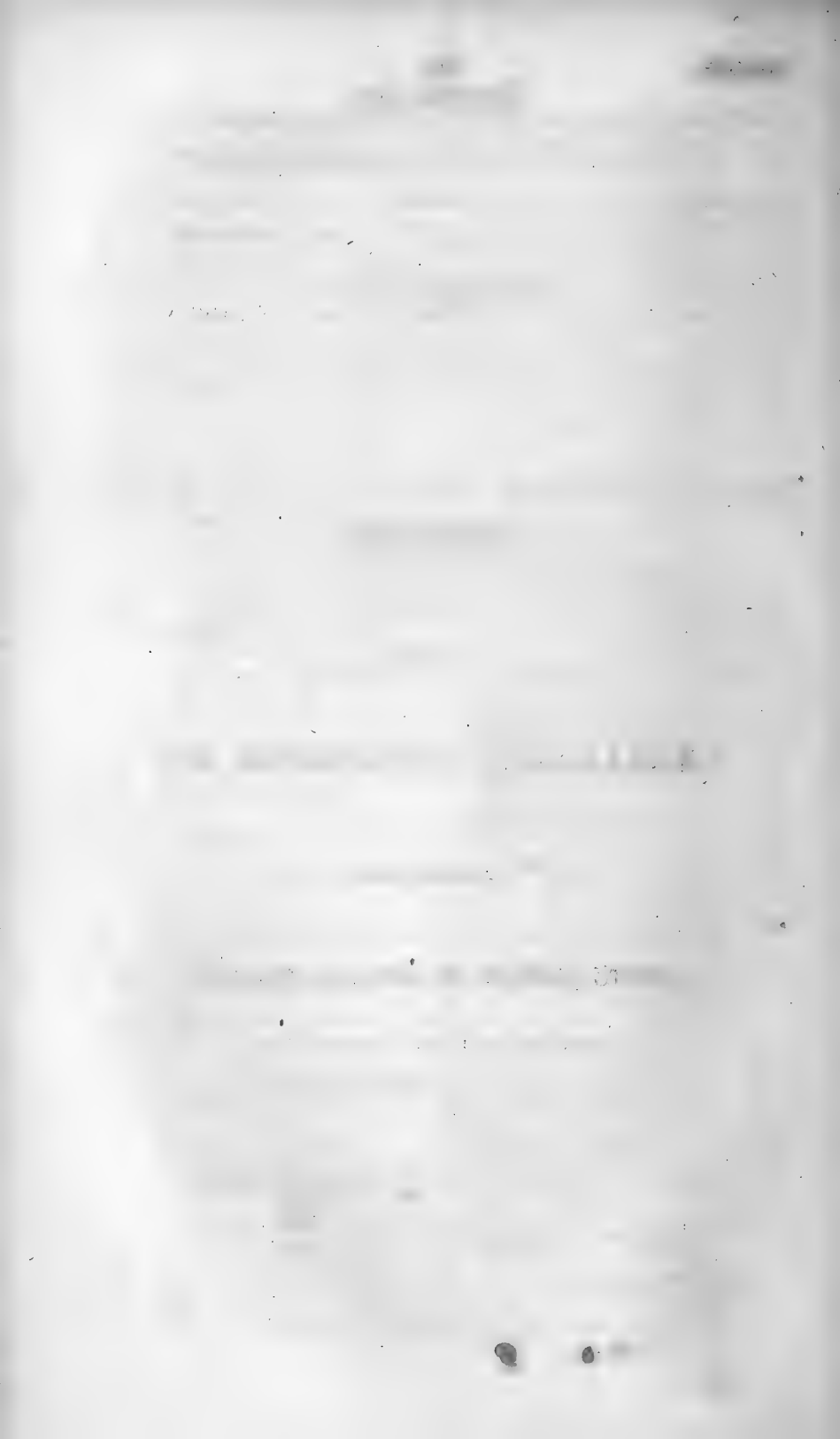
OF THE

MOLLUSCA, CRUSTACEA, &c.

ADDED TO THE

STATE CABINET OF NATURAL HISTORY,

FROM JANUARY 1, 1853, TO JANUARY 1 1854.



# CONCHOLOGY.

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CATALOGUE OF SPECIMENS PRESENTED TO THE STATE CABINET  
BY DR. CHARLES MARTIN, OF THE U. S. NAVY.

(ARRANGED ACCORDING TO THE SYSTEM OF LAMARCK.)

## CLASS I. ANNELIDES.

### FAMILY AMPHITRITÆA.

SABELLARIA CRASSISSIMA. *The Strong Sabellaria.*

## CLASS II. CIRRHIPEDES.

BALANUS TINTINNABULUM. *The Little-bell Balanus.*

ANATIFERA LEVIS, 3 sp. *The Smooth Anatifera.*

## CLASS III. CONCHIFERA.

### FAMILY TUBICOLA.

ASPERGILLIUM JAVANUM. *The Java Wateringpot-shell.*

### FAMILY SOLENIDES.

SOLENI RADIATUS.

## FAMILY NYMPHACEA.

PSAMMOBIA CÆRULESCENS.

PSAMMOBIA —.

PSAMMOBIA —.

TELLINA RADIATA. *The Radiated Tellen.*

TELLINA —, 4 specimens.

TELLINA —.

TELLINA —.

TELLINA —.

TELLINA —.

TELLINA —.

CAPSA LÆVIGATA. *The Smooth Capsa.*

## FAMILY CONCHACEA.

CYTHEREA MACULATA.

CYTHEREA —.

CYTHEREA —.

VENUS VERRUCOSA.

VENUS PAPILIONACEA

VENUS —, 2 sp.

VENUS —.

VENUS —.

VENUS —.

VENUS —.

VENUS —.

## FAMILY CARDIACEA.

CARDIUM CARDISSA, 2 sp. *Venus's Heart.*

CARDIUM RETUSUM.

CARDIUM —, 5 sp.

CARDIUM —.

CARDIUM —.

CARDIUM —.

ISOCARDIA MOLTKEIANA. *The Heart Isocardia.*



## FAMILY ARCACEA.

CUCULLÆA AURICULIFERA, 2 sp. *The Eared Cucullæa.*ARCA NOÆ. *Noah's Ark.*ARCA TORTUOSA. *The Twisted Ark.*

ARCA INDICA, 2 sp.

ARCA —.

ARCA —.

ARCA —.

PECTUNCULUS —.

PECTUNCULUS —.

## FAMILY CHAMACEA.

CHAMA LAZARUS, 2 sp. *Lazarus's Chama.*

CHAMA —,

CHAMA —.

## FAMILY TRIDACNITES.

TRIDACNA SQUAMOSA.

HIPPOPUS MACULATUS, 4 sp. *The Spotted Hippopus.*

## FAMILY MYTILACEA.

MYTILUS EROSUS, 7 sp.

MODIOLA TULIPA.

PINNA SQUAMOSA. *The Scaly Pinna.*PINNA NIGRINA. *The Black Pinna.*

PINNA —.

## FAMILY MALLEACEA.

PERNA —.

MALLEUS ALBUS. *The Hammer Oyster.*MELEAGRINA MARGARITIFERA. *The Mother-of-pearl Oyster.*

## FAMILY PECTINIDES.

PECTEN PLEURONECTES. *The Sole Scallop.*

PECTEN MAXIMUS.

PECTEN —.

PLICATULA —.

SPONDYLUS GÆDAROPUS. *The Thorny Red Spondylus*

SPONDYLUS —.

SPONDYLUS —.

FAMILY OSTRACEA.

OSTREA —.

ANOMIA EPHIPIUM, 2 sp. *The Saddle Anomia.*

CLASS IV. MOLLUSCA.

FAMILY PHYLLIDIACEA.

CHITON —, 3 sp.

PATELLA. Eleven species.

FAMILY CALYPTRACEA.

FISSURELLA —, 2 sp.

FISSURELLA —.

CREPIDULA —, 4 sp.

FAMILY BULLÆANA.

BULLA APLUSTRE. *The Streamer-like Bulla.*

BULLA AMPULLA, 4 sp.

FAMILY COLIMACEA.

HELIX HETEROCLITES.

HELIX ALBOLAEBIS.

HELIX — from St. Domingo.

HELIX —.

HELIX —, 2 sp.

HELIX —, 4 sp.

HELIX —, 2 sp.

HELIX —, 5 sp.

HELIX —, 4 sp.

HELIX —.

CAROCOLLA LAPICIDA. *The Stone Carocolla.*

CAROCOLLA —.

PUPA MUMIA, 5 sp. *The Double-toothed Pupa.*

BULIMUS HÆMASTOMUS. *The Rose-lipped Bulimus.*

BULIMUS —, 3 sp.

ACHATINA ZEBRA, 2 sp. *The Zebra Achatina.*

ACHATINA VIRGINIA. *The Virginian Achatina.*

AURICULA JUDEÆ. *Judas's Ear.*

#### FAMILY NERITACEA.

NERITINA ZEBRA. *The Zebra or Striped Neritina.*

NERITINA —, 2 sp.

NERITINA —.

NERITINA —, 4 sp.

NERITINA —, 9 sp.

NERITINA —.

NERITINA —, 5 sp.

NERITA PELORONTA. *The Bleeding-tooth Nerita.*

NERITA —, 5 sp.

NERITA —, 2 sp.

NATICA MAMMILLA, 5 sp. *The Nipple Natica.*

NATICA ZEBRA, 5 sp. *The Zebra Natica.*

NATICA —, 2 sp.

NATICA DUPLICATA, 2 sp.

NATICA —, 2 sp.

NATICA HEROS, 2 sp.

NATICA —, 2 sp.

NATICA —.

JANTHINA COMMUNIS, 6 sp. *The Common Janthina.*

#### FAMILY MACROSTOMIDES.

SIGARETUS HALIOTOIDEUS. *The Haliotis-shaped Sigaretus.*

HALIOTIS CANALICULATA, 4 sp. *The Ear-shell.*

## FAMILY PLOCACEA.

PYRAMIDELLA DOLABRATA. *The Dentated Pyramidella.*

## FAMILY SCALARIDES.

SCALARIA PRETIOSA, 3 sp. *The Precious Scalaria, or Winding Staircase.*

SCALARIA COMMUNIS. *Common Scalaria, or False Wentletrap.*

DELPHINULA LACINIATA. *The Fringed Delphinula.*

## FAMILY TURBINACEA.

SOLARIUM PERSPECTIVUM, 2 sp. *The Perspective Solarium.*

ROTELLA LINEOLATA.

ROTELLA —.

ROTELLA —.

TROCHUS OBELISCUS. *The Obelisk Trochus.*

TROCHUS AGGLUTINANS. *The Agglutinating or Carrier Trochus.*

TROCHUS MACULATUS, 2 sp.

TROCHUS —.

TROCHUS —.

TROCHUS —, 2 sp.

TROCHUS —, 2 sp.

TROCHUS —.

TROCHUS —, 3 sp.

TROCHUS —.

TROCHUS —, 2 sp.

TROCHUS —, 2 sp.

TROCHUS —, 2 sp.

TURBO PICA, 2 sp. *The Magpie Turbo.*

TURBO —, 3 sp.

TURBO —, 3 sp.

TURBO —, 5 sp.

TURBO —.

TURRITELLA DUPLICATA.

TURRITELLA —, 3 sp.

TURRITELLA —.

FAMILY CANALIFERA.

CERITHUM SEMIGRANOSUM. *The Semigranulated Cerithium.*

CERITHUM —, 2 sp.

CERITHUM —, 3 sp.

CERITHUM —, 2 sp.

PLEUROTOMA BABYLONICA. *The Tower-of-Babel Pleurotoma.*

PLEUROTOMA —, 2 sp.

PLEUROTOMA —.

TURBINELLA CORNIGER, 3 sp.

TURBINELLA POLYGONIA.

CANCELLARIA RETICULATA, 3 sp. *The Reticulated Cancellaria.*

FASCIOLARIA TULIPA, 3 sp. *The Tulip Fasciolaria.*

PYRULA CANALICULATA, 5 sp.

PYRULA CARICA.

PYRULA FICUS. *The Fig Pyrula.*

PYRULA —, 5 sp.

PYRULA —, 2 sp.

BANELLA BECKII (Kiener), 3 sp.

MUREX PINNATUS.

MUREX —, 3 sp.

MUREX —.

MUREX —.

MUREX —.

MUREX —.

MUREX —.

MUREX —.

TRITON SUCCINCTUM, 2 sp.

TRITON ANUS. *The Grinning Triton.*

TRITON —.

TRITON —.

TRITON —.

TRITON —.

TRITON —.

TRITON —.

TRITON —.

TRITON —.

## FAMILY ALATÆ.

PTEROCERAS AURANTIA, 3 sp.

STROMBUS AURIS-DIANÆ. *Diana's-ear Strombus.*

STROMBUS LENTIGINOSUS, 2 sp.

STROMBUS VITTATUS.

STROMBUS LUHUANUS, 4 sp.

STROMBUS —.

## FAMILY PURPURIFERA.

CASSIS TESTICULUS, 5 sp.

CASSIS AREOLA. *The Draftboard Cassis.*CASSIS ZEBRA. *The Zebra Cassis.*

CASSIS —.

CASSIS —.

CASSIS —.

PURPURA PATULA, 6 sp.

PURPURA SERTUM.

PURPURA TEXTILOSA, 2 sp.

PURPURA —.

PURPURA —, 2 sp.

PURPURA —, 2 sp.

MONOCERAS —.

HARPA NOBILIS, 6 sp. *The Noble Harp.*DOLIUM PERDIX. *The Partridge Dolium.*

DOLIUM —.

BUCCINUM PAPILLOSUM. *The Prickly-lip Buccinum.*

EBURNA AREOLATA.

EBURNA GLABRATA, 3 sp.

TEREBRA MACULATA, 3 sp. *The Spotted Terebra.*

TEREBRA —.

#### FAMILY COLUMELLARIA.

MITRA EPISCOPALIS. *The Episcopal Mitre.*

MITRA —.

MITRA —.

MITRA —.

VOLUTA ÆTHIOPICA. *The Æthiopian Volute.*

VOLUTA VESPERTILIO, 4 sp.

VOLUTA UNDULATA, 2 sp.

VOLUTA —.

VOLUTA —.

#### FAMILY CONVOLUTA.

OVULA VOLVA. *The Weaver's Shuttle.*

OVULA GIBBOSA, 4 sp. *The Belted Ovula.*

CYPRÆA MAURITIANA.

CYPRÆA HISTRIO, 3 sp.

CYPRÆA CAPUT-SERPENTIS. *The Serpent's-head Cypræa.*

CYPRÆA TIGRIS. *The Tiger Cypræa.*

CYPRÆA EUROPA.

CYPRÆA LYNX, 2 sp.

CYPRÆA RUVEI, 5 sp.

CYPRÆA MUS, 4 sp. *The Mouse-colored Cypræa.*

CYPRÆA ASELLUS, 2 sp.

CYPRÆA HELVEOLA.

CYPRÆA —.

- CYPRÆA ———.
- CYPRÆA ———.
- CYPRÆA ———, 6 sp. (young shells).
- CYPRÆA ———.
- OLIVA UNDATA, 2 sp. *The Waved Olive.*
- OLIVA DACTYLEA, 5 sp.
- OLIVA UTRICULUS (varietas), 12 sp.
- OLIVA ———.
- CONUS MUSTELINUS. *The Weasel Cone.*
- CONUS NEBULOSUS, 2 sp.
- CONUS VERRICULUM, 2 sp.
- CONUS BETULINUS, 2 sp.
- CONUS NOCTURNUS, 2 sp.
- CONUS ———.
- CONUS ———.
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- CONUS ———.

#### FAMILY NAUTILACEA.

- SPIRULA PERONII. *Peron's Spirula.*
- NAUTILUS POMPILIUS. *The Pompilius Nautilus.*



## FAMILY HETEROPODA.

ARGONAUTA TUBERCULOSA. *The Tuberculated Argonaut.*

## RADIATA.

## CLASS ECHINODERMATA.

Six species of ECHINUS.

## CLASS POLYPI.

SARCINULA MUSICALIS. *The Organ-pipe Coral.*


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 CATALOGUE OF SHELLS

 CONTRIBUTED TO THE CABINET OF NATURAL HISTORY  
 OF THE STATE OF NEW-YORK,

FROM THE PRIVATE CABINET OF JAMES LEWIS, OF MOHAWK, N. Y.

NO.	HABITAT.
1	PISIDIUM PALUSTRE. Ditches and bogs, Mohawk.
2	CYCLAS SECURIS, 15 sp. Cambridge and Groton.
3	CYCLAS TRANSVERSA, 15 sp. Erie canal, Mohawk river, &c.
4	CYCLAS ELEGANS, 7 sp. Massachusetts.
5	LIMNEA CATASCOPIUM. Erie canal.
6	CYCLAS PARTUMEIA, 7 sp. Mass. within ten miles of Boston.
7	CYCLAS SIMILIS, 10 sp. Schuyler's lake, Otsego county.
8	CYCLAS (RUGOSA). Erie canal : very plenty.
9	
10	PHYSA ——. Vicinity of Mohawk.
11, 12	Specimens of local character not entered.
13	HELIX MONODON, 8 sp. Vicinity of Mohawk.
14	HELIX ALTERNATA, 12 sp. Vicinity of Mohawk.

- 15 *HELIX FALLAX*, 6 sp. Vicinity of Mohawk.
- 16 *HELIX ALBOLABRIS*, 2 sp. Vicinity of Mohawk.
- 17 *PHYSA HETEROSTROPHA*, 6 sp. Remains of the old canal, Mohawk.
- 18
- 19 *HELIX PALLIATA?* 3 sp. Vicinity of Mohawk.
- 20 *LIMNEA ELODES?* 6 sp. Ditch, vicinity of Mohawk.
- 21 *LIMNEA MODICELLUS?* 13 sp. Old canal near upper lock, Mohawk.
- 22 *LIMNEA ELODES?* 12 sp. Old canal near upper lock, Mohawk.
- 23 *CYCLAS OCCIDENTALIS*, 24 sp. Ditches on flats, Mohawk.
- 24 *CYCLAS SIMILIS*, 12 sp. Small pond, once the bed of W. Canada cr.
- 25 *CYCLAS ROSACEA?* 20 sp. Ditch on flats of Mohawk.
- 26 *PHYSA* —, 7 sp. Ditch on flats, Mohawk.
- 27 *CYCLAS ERRANS*, 26 sp. Pool, Mohawk.
- 28 *PHYSA* —, 7 sp. Hill stream, Mohawk.
- 29 *LIMNEA ELODES?* 8 sp. Found in a pool near Mohawk.
- 30 *CYCLAS QUERCUS*, 10 sp. Outlet of Schuyler's lake.
- 31 *PLANORBIS MEGASTOMA*, 10 sp. Old lock near Mohawk.
- 32 *PISIDIUM DUBIUM*, 18 sp. Mohawk river.
- 33 *SUCCINEA CAMPESTRIS*, 8 sp. Vicinity of Mohawk.
- 34 *SUCCINEA* —, 5 sp. Shore of Schuyler's lake, Otsego county.
- 35 *SUCCINEA* —, 8 sp. Margin of ditches, Mohawk.
- 36 *PALUDINA PONDEROSA*, 5 sp. Erie canal. Introduced?
- 37 *PISIDIUM COMPRESSUM?* 18 sp. Mohawk river.
- 38 *CYCLAS (RUGOSA)*. Mohawk river.
- 39 *PISIDIUM ALTILE*. Erie canal. Introduced?
- 40 *PISIDIUM ADAMSI*, 21 sp. Ditches on flats, etc. Mohawk.
- 41 *PISIDIUM COMPRESSUM?* Ditches on flats, etc. Mohawk.
- 42 *PALUDINA INTEGR*A, 5 sp. Mohawk river.
- 43 *PLANORBIS BICARINATUS*, 13 sp. Vicinity of Mohawk.
- 44 *PHYSA* —, 2 species. Mohawk river.
- 45 *PISIDIUM* — (variable). Cambridge meadows, Groton, &c.
- 46 *AMNICOLA PORATA*. Massachusetts. For comparison.

- 47 VALVATA TRICARINATA. Vicinity Mohawk, canal and river.
- 48 AMNICOLA ——. Erie canal, Mohawk river, Mohawk.
- 49 CYCLAS TRUNCATA, 10 sp. Cambridge, Mass.
- 50 PISIDIUM FERRUGINEUM. Cambridge, Mass.
- 51, 52, 53, 54, 55, 56 Varieties of PHYSA, referable to different localities, not yet fully examined.
- 57 MELANIA ——, 11 sp. Erie canal, Mohawk.
- 58 MELANIA ——, 7 sp. Erie canal, Mohawk.

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## CRUSTACEA.

### ORDER PÆCILOPODA.

- POLYPHEMUS OCCIDENTALIS. *Horsefoot or King Crab.* - - - - Zoology.—Part VI.  
 Two specimens (small). Presented by WILLIAM S. CANEDY, of p. 55  
 East-Albany.

### ECHINODERMS.

- ECHINASTER SANGUIOLENTIS. *The Starfish* (AGASSIZ).  
 From the coast of New-England. Presented by WILLIAM S. CANEDY, of East-Albany.

## MISCELLANEOUS.

From JOHN C. SYMMES of the U. S. Ordnance Department, who received the specimens from Capt. JARVIS of Norfolk Navy Yard.

SHIP WORM (*Teredo navalis*), from Norfolk harbor, the growth of one year.

Also a piece of PINE WOOD, of one year's exposure in the same locality.

The worm grows forward as it bores; coats its shell with lime, imperviously to water; never penetrates through to another cell, or to the outside; and dies if its cell is opened to air, or water, fresh or salt. The bark, white zinc paint, or copper sheathing alone as yet are found to resist it. Its entrance into the timber is not perceptible, and it never leaves its piece.

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From MESSRS. GALLUP & MACHIN, of California.

Nest of the TARANTULA.

The following is a copy of the letter accompanying the specimen :

GREEN SPRING, California.

JULY 21, 1853.

DEAR SIR—Enclosed please find the top or cover of a "Tarantula's Nest," which, from its peculiar shape and structure, cannot fail to arrest the attention of the inquiring naturalist. As there are none of the Tarantula in your State, we hope this specimen of their ingenuity may not prove uninteresting to you.

The nest is a small hole in the ground, made waterproof by means of the web or lining (as seen in the accompanying specimen). It is about a foot deep, terminated at the top by a cover which is made even with the surface of the earth. It is in these nests or holes that their young are hatched and nurtured.

Most respectfully yours,

GALLUP & MACHIN.

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From Dr. CHARLES MARTIN, U. S. Navy.

Nest of a SOUTHERN HUMMINGBIRD.

Appendix.

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C.

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**ADDITIONS**

TO THE

**BOTANICAL DEPARTMENT**

IN THE

**STATE CABINET OF NATURAL HISTORY,**

FROM JANUARY 1, 1853, TO JANUARY 1, 1854.

REMARKS OF THE

# BOTANY.

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FROM FRANKLIN B. HOUGH, A.M., M.D.,

OF MARTINSBURGH, LEWIS COUNTY, N.Y.

NO.		
727	VERONICA OFFICINALIS,	Common Speedwell.
800	LITHOSPERMUM OFFICINALE,	Common Gromwell.
1000	URTICA DIOICA,	Common Stinging Nettle.
1448	CALYPSO BOREALIS,	Northern Calypso.

---

From I. J. MERRITT. of Troy, N.Y.

THE SNAKE-NUT (*Ophiocaryon paradoxum* of SCHOMBURGK).

From Demerara.

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From ELIAS STANTON, of South-Westerlo, Albany county.

A specimen of Moss which grew on a hemlock tree on the Allegany mountains in Pennsylvania. It was four feet and two inches in length when found.

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From Dr. CHARLES MARTIN, of the U. S. Navy.

MONKEY-POT (seed-vessel of), with the seeds.

From Brazil : it also occurs in British Guiana. This very singular seed-vessel is the pericarp of *Lecythis grandiflora*, AUBL. It contains a great number of oleaginous kernels, larger than almonds, which are much esteemed by the Indians.

From J. O. STRATTON, of Oxford, Chenango county, N.Y.

Specimen of SULPHUR (so called), but of the POLLEN of the PINE TREE, which fell in considerable quantity, so as to be visible on the ground, during a rain-storm, at Oxford in Chenango county, on the 26th of March 1853.

A small portion of the yellow powder being placed under a powerful microscope, proved it to be of vegetable origin, and to be wholly composed of the pollen of plants. The pollen grains are all uniformly kidney-shaped, clearly showing that they are all from the same species of plant.

The pollen was shown to Prof. HENRY of the Smithsonian Institution, while on a visit to the city of Albany the past summer; who stated that a similar powder had been sent to their institution at Washington, and that it had been submitted to Prof. BAILEY for examination.

Through the politeness of Prof. HENRY, the following communication was received :

‘ SMITHSONIAN INSTITUTION,

WASHINGTON, D.C. Nov. 7, 1853.

MY DEAR SIR— By Prof. HENRY’S request, I write to inform you that the “sulphur dust” submitted by the Smithsonian Institution to Prof. BAILEY for microscopic examination, proved to be the pollen of the Pine tree.

Yours truly, SPENCER F. BAIRD, *Assist. Sec. S. I.*

The extent of the pollen storm may be inferred from the following extracts from the public journals :

From the *Guersey (Ohio) Times*.

A PHENOMENON — On Saturday morning last we were visited with rain, accompanied by wind from the southwest. A short time after the shower commenced, a singular substance, of the appearance of sulphur, was discovered on our pavements, and other places where little puddles of water collected. The popular opinion decided the yellow deposit to be veritable brimstone, and our relative distance from plutonian regions was a matter of considerable speculation. The same phenomenon occurred at Zanesville; and Dr. HOLSTON, who made a microscopic examination of the substance, found it to be the pollen of blossoming trees, borne on the wind from regions where trees are now blooming, and brought to the ground by the rain. This is a reasonable, and, we doubt not, the true solution of the mystery of the “shower of brimstone.”

The *Albany Evening Journal*, in commenting upon the above article from the *Ohio Times*, remarks as follows :

“Notices of this ‘phenomenon’ reach us from as far to the southwest as Louisville (Ky.), the ‘sulphur track’ extending northwest to Delaware county in this State. Generally the substance deposited is regarded as ‘veritable brimstone;’ but the true solution of the mystery is most undoubtedly given in the above paragraph.”



## CATALOGUE OF ALGÆ SCOTICÆ,

OR DRIED SPECIMENS OF PLANTS BELONGING TO THE ORDER ALGÆ,

COLLECTED IN SCOTLAND, AND ARRANGED BY JAMES CHALMERS :

Obtained from the Cabinet of the late Prof. LEWIS C. BECK, for the State Collection.

- No. 1. *CONFERVA LANOSA*.  
HAB. On fuci near Portnahaven in Isla : abundant.
- No. 2. *CHONDRIA PUSILLA*.  
HAB. Coast of Skye.
- No. 3. *CONFERVA RUPESTRIS*.  
HAB. Rocks on the seashore : common.
- No. 4. *CERAMIUM DIAPHANUM*.  
HAB. Rocky shores : frequent.
- No. 5. *CERAMIUM RUBRUM*.  
HAB. On fuci, etc. : common.
- No. 6. *GRIFFITHSIA SETACEA*.  
HAB. Coast of Isla about Portnahaven, in rejectamenta : rare.
- No. 7. *HUTCHINSIA COCCINEA*.  
HAB. Among rejectamenta at Portnahaven in Isla, but not very common.
- No. 8. *HUTCHINSIA URCEOLATA*.  
HAB. On rocks and fuci about Portnahaven in Isla : very common.
- No. 9. *HUTCHINSIA ELONGATA*.  
HAB. Coast of Isla about Portnahaven : not common.
- No. 10. *HUTCHINSIA ATORRUBESCENS*.  
HAB. Coast of Isla near Portnahaven : not common.
- No. 11. *HUTCHINSIA FASTIGIATA*.  
HAB. On fuci : abundant.
- No. 12. *CLADOSTEPHUS SPONGIOSUS*.  
HAB. Sea-rocks : not uncommon.
- No. 13. *CODIUM TOMENTOSUM*.  
HAB. In pools left by the tide in the little island near Portnahaven in Isla. This curious plant was not known as an inhabitant of Scotland, when Dr. HOOKER's *Flora Scotica* was published; but in 1825 it was discovered, for the first time, in the Island of Iona, by J. BERKLEY, esquire, of Christ's College, Cambridge.

- No. 14. *PTILOTA PLUMOSA*.  
HAB. Coast of Isla about Portnahaven : frequent.
- No. 15. *PTILOTA PLUMOSA*, *var. CAPILLARIS*.  
HAB. Coast of Isla about Portnahaven : frequent.
- No. 16. *SPHÆROCOCCLUS DENTATUS*.  
HAB. Coast of Isla about Portnahaven : not unfrequent.
- No. 17. *SPHÆROCOCCLUS SUBFUSCUS*.  
HAB. Near Portnahaven : common.
- No. 18. *CHONDRIA PINNATIFIDA*.  
HAB. Rocky shores : common.
- No. 19. *CHONDRIA OVALIS*.  
HAB. Coast of Isla about Portnahaven : not uncommon.
- No. 20. *CHONDRIA CLAVELLOSA*.  
HAB. Near Portnahaven in Isla : not unfrequent; mostly among rejectamenta.
- No. 21. *CHONDRIA ARTICULATA*.  
HAB. Coast of Isla about Portnahaven : common.
- No. 22. *SPHÆROCOCCLUS CORNEUS*,  $\beta$  *FILICINUS*.  
HAB. Sea-rocks near Portnahaven in Isla : rare.
- No. 23. *SPHÆROCOCCLUS LACINIATUS*.  
HAB. Coast of Isla about Portnahaven : frequent.
- No. 24. *HALYMENIA EDULIS*.  
HAB. Coast of Isla about Portnahaven : not uncommon.
- No. 25. *HALYMENIA PALMATA*.  
HAB. Rocky shores : common.
- No. 26. *ULVA?* *PURPURASCENS*.  
HAB. Seashores : frequent.
- No. 27. *DELESSERIA SANGUINEA*.  
HAB. Seashores : not unfrequent. Near Portnahaven in Isla, rare.
- No. 28. *DELESSERIA SINUOSA*.  
HAB. Seashores : common.
- No. 29. *DELESSERIA ALATA*.  
HAB. Sea-rocks : frequent.
- No. 30. *DELESSERIA COCCINEA*.  
HAB. Sea-rocks : frequent. Coast of Isla about Portnahaven, mostly among rejectamenta.
- No. 31. *DELESSERIA LACERATA*.  
HAB. Coast of Isla about Portnahaven.

- No. 32. *ULVA FISTULOSA*.  
HAB. Coast of Isla about Portnahaven : not uncommon.
- No. 33. *SPOROCHNUS ACULEATUS*.  
HAB. Seashores : frequent.
- No. 34. *CHORDARIA VIRIDIS*.  
HAB. Coast of Isla near Portnahaven : not uncommon.
- No. 35. *LAMINARIA LINGULATA*.  
HAB. Coast of Isla near Portnahaven : rare.
- No. 36. *LAMINARIA ESCULENTA*.  
HAB. Seashores : common.
- No. 37. *LAMINARIA DIGITATA*.  
HAB. Seashores : frequent.
- No. 38. *SEMANIA FLUVIATILIS*.
- No. 39. *LAMINARIA DEBILIS*.  
HAB. Coast of Isla near Portnahaven : not uncommon.  
This plant corresponds in every particular with AGARDH'S original specimens in Dr. HOOKER'S Herbarium, and appears to be an undoubted *LAMINARIA*. Perhaps the *Ulva plantaginea* of LYNGB, the *Zonaria plantaginea* of AGARDH, will prove to be only an older state of this plant.
- No. 40. *LICHINA PYGMÆA*.  
HAB. Marine rocks : not uncommon. Coast of Isla near Portnahaven, rather rare.
- No. 41. *LICHINA PYGMÆA*,  $\beta$  MINOR.  
HAB. Marine rocks, a little above highwater mark. Coast of Isla west from Portnahaven : very abundant.
- No. 42. *FURCELLARIA LUMBRICALIS*.  
HAB. Seashores : frequent.
- No. 43. *FUCUS NODOSUS*.  
HAB. On rocky shores : common.
- No. 44. *FUCUS CERANOIDES*.  
HAB. Lochgoil.
- No. 45. *FUCUS BALTICUS*.  
HAB. Sandy shores at Brodick Bay in the Isle of Arran.
- No. 46. *FUCUS SERRATUS*.  
HAB. Rocks on the shores : common.
- No. 47. *FUCUS CANALICULATUS*.  
HAB. Rocky shores : common.

No. 48. *FUCUS LOREUS*.

HAB. Seashores : not uncommon. Coast of Isla about Portnahaven, abundant.

No. 49. *FUCUS SILIQUOSUS*.

HAB. Rocky shores. Coast of Isla near Portnahaven : not unfrequent.

No. 50. *SPHÆROCOCCUS PLICATUS*.

HAB. Near Portnahaven in Isla : not uncommon.

# Appendix.

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D.

## LIST

OF

MINERALS, GEOLOGICAL SPECIMENS AND FOSSILS,

ADDED TO THE

STATE CABINET OF NATURAL HISTORY,

FROM JANUARY 1, 1853, TO JANUARY 1, 1854.

THE UNIVERSITY OF CHICAGO PRESS

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THE UNIVERSITY OF CHICAGO PRESS

## MINERALS.

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From the Hon. WILLIAM TAYLOR, of New York.

A specimen of BRECCIA, from Sandyhook.

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From THOMAS N. ALLEN, of Pleasant-valley, Dutchess county.

A specimen of MARBLE from the farm of Mr. ALLEN.

---

From E. S. SWEET, of Owego, New-York.

A specimen of LEAD ORE from a ravine in the valley of the Susquehannah, near Owego.

The following extract is taken from a letter to Prof. T. ROMEYN BROCK, which accompanied the specimen; dated Owego, February 18, 1853 :

DEAR SIR — I take the liberty of sending a specimen of ORE recently found in this vicinity, in a ravine situated in the valley of the Susquehannah river, near the base of a mountain 200 to 300 feet high, composed of loose shelly rock cropping out in various places, but mostly covered with soil. The ore is found in boulders lying in the soil, which is a hard clayey loam mixed with gravel. The specimen sent is a part of a lump weighing four pounds. No sufficient examination has yet been made to ascertain what quantity is likely to be found; although one man assures me, that in less than one hour, he took out forty pounds, and from twenty pounds of which he obtained eighteen pounds of pure lead.

Tradition avers that the indians formerly procured lead in that vicinity; but white men had no knowledge of its existence, until it was accidentally discovered while digging earth for our railroad bed which is near by.

Yours truly, E. S. SWEET.

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From DANIEL R. O'NEIL, Civil Engineer, New-York.

Three specimens of FIBROUS SULPHATE OF BARYTES, found in Wayne co.

Two specimens of SELENITE (*gypsum*), also from Wayne county.

From JOHN GEBHARD junior, Albany.

Five specimens of FIBROUS SULPHATE OF BARYTES, from Carlisle, Schoharie county.

From DAVID ADAMS, of Washington county.

LEAD ORE from the lands of DAVID NOXEN, Whitecreek, Washington co.

From WILLIAM L. SMITH, of New-York.

A specimen of CINNABAR from California.

From W. C. WATSON, of Port Kent, Essex county, N.Y.

A large specimen of CRYSTALLIZED PYROXENE, taken from a formation just over the line of Essex in Franklin county, N.Y.



CATALOGUE OF MINERALS PURCHASED IN OCTOBER 1853,  
OF SILAS R. HORTON, OF CRAIGSVILLE, ORANGE COUNTY, N.Y.;  
TO SUPPLY DEFICIENCIES IN THE MINERALOGICAL DEPARTMENT OF THE STATE CABINET.

- | Names of Minerals.   | Localities.                   |
|--|-------------------------------|
| No. 1. JENKINSITE ( <i>the green coating</i> ).  | Monroe, Orange county.        |
| Analyzed by Prof. J. LAWRENCE SMITH, of Virginia. This mineral has been discovered in this State since the publication of Professor LEWIS C. BECK'S Mineralogy. The specimen also contains fine crystals of magnetic iron.                           |                               |
| 2. Fine crystals of MAGNETIC IRON.   | Monroe, Orange county.        |
| 3. Iridescent crystals of MAGNETIC IRON.   | Monroe, Orange county.        |
| 4. DIMAGNETITE - - - - -   | Monroe, Orange county.        |
| New mineral of Prof. SHEPARD; crystals always small and scarce. Discovered in this State since the publication of Prof. BECK'S Mineralogy. The specimen also contains iridescent crystals of magnetic iron.  |                               |
| 5. SILLIMANITE? - - - - -  | Yorktown, Westchester county. |
| New mineral? Prof. LEWIS C. BECK considers sillimanite as identical with bucholzite (See the Professor's Report on the Mineralogy of New-York, &c., published in the Annual Report of the Regents on the State Cabinet for the year 1849, page 140). |                               |



## MINERALS.

## LOCALITIES.

6. SULPHURET OF MOLYBDENA. - Warwick, Orange county.
7. PYROXENE, crystallized. - - - Warwick, Orange county.
8. Twin crystal of PYROXENE. - Warwick, Orange county.
9. ALLANITE, in felspar. - - - - Monroe, Orange county.
10. ALLANITE (very fine), in granite. Monroe, Orange county.
11. ALLANITE, massive. - - - - Monroe, Orange county.
12. SPHENE, crystals in scapolite. - Monroe, Orange county.
13. COPPER PYRITES. - - - - - Monroe, Orange county.
- This pyrites has not yet been analyzed : it is supposed to contain a small portion of gold.
14. YTTROCERITE. - - - - - Warwick, Orange county.
- This mineral was discovered in this State since the publication of Prof. BECK'S Mineralogy. See Prof. BECK'S remarks on the subject, in his Report on the Mineralogy of the State (above referred to), published in the Report of the Regents on the State Cabinet for the year 1849, p. 151.
15. MONROLITE? - - - - - Monroe, Orange county.
- New mineral? Probably a species of kyanite.
16. ASBESTUS. - - - - - 23d-street, New-York city.
17. SAHLITE, large crystal. - - - Monroe, Orange county.
18. SAPPHIRE, fine red (corundum). Warwick, Orange county.
- 19, 20. AMIANTHUS (very fine), in green serpentine. Putnam county.
21. PYROPE GARNETS. - - - - - Monroe, Orange county.
22. COPPER PYRITES (finely crystallized), with quartz; from a new mine in Ulster county.
23. COPPER PYRITES, with crystals, iridescent. Ulster county.
24. QUARTZ, twin crystal. - - - Ulster county.
25. QUARTZ, beautifully crystallized, associated with copper pyrites. Ulster county.
26. QUARTZ, fine crystals, and copper pyrites. Ulster county.
27. GALENA, fine specimen, from the copper mine, Ulster county.
28. THOMPSONITE. - - - - - Fort Montgomery, Orange co.
29. CALCAREOUS SPAR, crystallized. O'Niel mine, Monroe, Orange co.
30. SPINELLES, dark lilac, with fine chondrodite. Warwick, Orange co.
31. RED SAPPHIRE with green (corundum). Warwick, Orange county.

## MINERALS.

## LOCALITIES.

32. Perfect SPINELLE. - - - - Monroe, Orange county.
33. Perfect SPINELLE, dark green. - Monroe, Orange county.
34. Large SPINELLE, coated with pyroxene. Monroe, Orange county.
35. Large and fine group of SPINELLES ; small ones curiously modified.  
Monroe, Orange county.
36. Fine truncated SPINELLES. - - Monroe, Orange county.
- These spinelles appear black, but are green : they are new and different from the old ones, and have not yet been analyzed. They are scarce and costly, and the preceding specimens present a suite of the different forms.
37. SOAPSTONE (*steatite*). - - - Monroe, Orange county.
38. GREEN COCCOLITE (*pyroxene*), in white calcareous spar, from a cave  
at the Green woods, Monroe, Orange county.
39. BLACK COCCOLITE (*pyroxene*), in white calcareous spar, from a cave  
at the Green Woods, Monroe, Orange county.
40. EPIDOTE in trap rock. - - - Monroe, Orange county.
41. GARNETS in green talc. - - - Brooklyn city.
42. IRON PYRITES. - - - - - Ulster county.
43. Six crystals of BIOTITE. - - - Monroe, Orange county.
44. LILAC SPINELLES. - - - - - Warwick, Orange county.
- 45, 46. Truncated SPINELLES. - - Monroe, Orange county.
47. IRON PYRITES, from Washington's Headquarters at Newburgh.

A lot of QUARTZ CRYSTALS (175 in number) from Middleville, Herkimer county, purchased at the sale of MARSH'S cabinet of minerals at Greenfield, Massachusetts, on the twenty-first day of September 1853.

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Presented by JOSEPH S. BARRIS, of Brighton (N.Y.), through Prof. COOK. Three specimens of SELENITE, finely crystallized ; from Elsworth, Trumbull county, Ohio.

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From Dr. CHARLES MARTIN, U. S. Navy.

Two specimens of AMETHYST.

Seventy-one QUARTZ CRYSTALS of various sizes.

A GARNET with twenty-four trapezoidal faces.

The following minerals, from the Ulster lead mine, were obtained from the proprietors of the mine :

Four large specimens of QUARTZ CRYSTALS.

Each of these specimens is a group of crystals of the ordinary form, attached to each other. The specimens are truly magnificent, the largest group weighing forty-six pounds.

Also five large specimens of GROUPS OF QUARTZ CRYSTALS, interspersed with copper pyrites and lead ore. These crystals are all terminated prisms; and the specimens are, perhaps, equal in beauty to any ever obtained in this State.

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## GEOLOGICAL, INCLUDING FOSSILS.

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### DONATIONS.

From Capt. S. H. DRENNAN, of New-York.

**Fossil TROPICAL FRUITS and WOOD**, from the iron ore beds of Brandon, Vermont.

From EDMUND HOGAN, of West-Poultney, Vermont.

**A specimen of ROOFING SLATE**, from Hampton Slate Quarry, Washington county, N.Y.

From SHEPARD MOREY, of Milton, Saratoga county.

**A specimen of LIMEROCK** containing FAVOSITE, taken from Westcott's quarry, situated in the town of Milton, five miles north of Ballston and three miles west from Saratoga-springs, Saratoga county.

From R. H. OJERS, of Troy city.

**CYATHOPHYLLUM** —? from the drift at Grand Rapids, Michigan.

This fossil is figured and described in OWEN'S Geological Survey of Wisconsin, Iowa and Minnesota, as the *Lithostrotion basaltiforme* (variety), and occurring in the carboniferous rocks of Iowa and Missouri.

From EZRA CHAMPION JUNIOR, of Knox, Albany county.

Seven specimens of CYATHOPHYLLA from Onondaga limestone.

Also several stems of ENCRINITES and PENTACRINITES, from the Pentamerus limestone.

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From HUMPHREY HOWLAND, esquire.

Specimens of the SHELL CONCRETION, which forms the surface rock on which the city of St. Augustine in Florida is built.

The following paper accompanies the specimens :

MEMORANDUM ON THE COQUINA OR SHELL-STONE OF EAST-FLORIDA.

FOR MR. HOWLAND, WITH DR. SIMMONS'S RESPECTS.

This singular concrete is found lying in shallow strata along a portion of the coast of East-Florida; or from the head of the North river which falls into St. Augustine harbor, to New-Smyrna south, where a different formation, the Coral rock, commences, and extends to the extremity of the peninsula. It has never, I believe, been scientifically examined; and I regret that I have neither access to the books, or the geological knowledge which would enable me to describe it properly, or with technical minuteness and accuracy. It does not extend westerly beyond the St. Johns, or indeed three or four miles back from the sea. It is thus singularly confined within less than a degree of latitude, and to a narrow stripe along the seacoast. It *crops out*, in geological phrase, in many places from under the sandhills of the shore; and its debris, or disintegrated particles, give a red color to the tract of beach between St. Augustine and Smyrna, that forms an indication to the mariner, who is acquainted with this circumstance, of his position in relation to the coast, more certain than soundings, and more convenient than an observation of the sun. It is composed sometimes of minutely comminuted particles of muscles and conchs, firmly agglutinated together, probably by an infiltration of lime abraded from their surfaces by the action of the sea. Other descriptions of it consist of entire shells, or their unbroken valves, which, being less firmly compacted, is less fit for building purposes than the former.

It is a circumstance not easily to be accounted for, that the stone is always composed of the same kinds of shells; while there are others, particularly two species of the *puma*, which, though thus never included in the rock, are found in abundance along the beach. The strata are of different degrees of thickness; varying from slabs of a few inches, to beds of several feet in depth.

The specimens herewith sent to Mr. HOWLAND will enable the scientific geologists of the North to describe more accurately, and determine the character of this unique species of stone. The old Spanish Fort of St. Marco, which commands the harbor of St. Augustine, and which was built more than a hundred years ago, is constructed of this stone, and is still in good repair. This serves to

show that the material is as durable as it is otherwise well suited for fortifications; being firm enough to withstand a cannonade, yet soft enough to be penetrated by balls, which become imbedded in it, without producing any extended fracture or material injury. As it is, however, porous and pervious to moisture, it probably would not stand severe frosts; and would not therefore be available for military uses, except within the limits in which it is produced, or in tropical latitudes.

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FROM F. CAILLIAUD,

DIRECTOR OF THE MUSEUM OF NATURAL HISTORY OF THE CITY OF NANTES IN FRANCE.

[Through M. VATTEMARE.]

A specimen of MICACEOUS GNEISS, perforated by the *Pholas dactylus*.

From Pouliguen on the coast of the Department of the Loire-Inferieure, with a shell of the PHOLAS. Discovered by M. CAILLIAUD on the 26th of October 1851.

This beautiful and very rare specimen is accompanied with a pamphlet on the subject by M. CAILLIAUD, in which he contests the idea that these perforations are altogether chemical, and asserts that they are also mechanical.

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From GEN. SPINNER, of Mohawk, Montgomery county.

A box containing a suit of the FOSSILS of the UTICA SLATE, a characteristic specimen of the TRENTON LIMESTONE, and a specimen of PETRIFIED MOSS.

The following is an extract from Gen. SPINNER'S letter, which accompanied the box :

“MOHAWK, December 20, 1853.

DEAR SIR—I forward you, by the American Express Company this day, a box containing a suit of the fossils of the Utica slate, a characteristic specimen of the Trenton limestone, and a beautiful specimen of petrified moss. I have discovered a fine locality of the Utica slate near by, where I can get the fossils, and will hereafter send you more and better ones!”

The late day at which the fossils were received, is the reason why a catalogue of them is not now given, but a full description of the same will be inserted in the next annual report.

## CATALOGUE OF FOSSILS,

BELONGING TO THE NEW-REDSANDSTONE PERIOD OF THE CONNECTICUT RIVER VALLEY :

COLLECTED BY THE LATE DEXTER MARSH OF GREENFIELD, MASSACHUSETTS,

And Purchased at the Administrator's Sale of his Cabinet in September 1853.

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ORDER DIPODICHNITES (HITCHCOCK). *Two-footed Tracks.*

SUBORDER ORNITHOIDICHNITES. *Bird-tracks.*

No. 1. A SLAB OF MICACEOUS SANDSTONE from South-Hadley Falls on the Connecticut River, five feet six inches by two feet six inches, with impressions of two colossal footprints each sixteen inches long : stride or length of step, three feet four inches.

These tracks have been figured and described by Prof. HITCHCOCK in his Geology of Massachusetts, as the *Ornithoidichnites giganteus*.

No. 2. A SLAB OF MICACEOUS SANDSTONE from Turner's Falls on the Connecticut River, twenty-eight by eighteen inches.

This slab, upon its upper surface, shows three rows of tracks, deeply indented in the stone, and running in different directions. These tracks are from four to five inches in length, and belong to the PACHYDACTYLI or *thick-toed tracks* of Prof. HITCHCOCK.

A beautiful and satisfactory illustration results from the circumstance that the lines of the three rows of tracks cross each other at nearly the same point, and where, fortunately, a track was impressed by each bird; track number two partly defacing track number one, and track number three in like manner partly defacing track number two, thus proving and showing conclusively the 'order' in which the bipeds travelled.

The reverse or underside of the slab is covered with minute elongated hemispheres of the same substance as the stone. These projections are casts in relief from the indentations on the upper surface of the underlying stratum; and are due, in the opinions of Prof. HITCHCOCK and other distinguished geologists and naturalists, to drops of rain. 'The impressions are elongated in a particular direction, as if the drops struck the surface obliquely; appearing in fact as if a wind accompanied the rain.' Three consecutive footprints in relief, one right and two left, each three and a half inches in length, accompany the rain drops.

No. 3. A SLAB OF MICACEOUS SANDSTONE from Turner's falls on the Connecticut river, twenty-seven by fifteen inches.

On its upper surface there are five tracks, each between four and five inches in length, impressed in the stone. These tracks belong to the *Pachydactyli* of Prof. HITCHCOCK.

The under surface of the stone is covered with minute hemispheres, resembling drops of rain, which are of the same substance as the sandstone. These hemispherical projections are casts in relief from the depressions made by rain drops in the underlying stratum, when in a plastic or yielding state : they are generally perfect hemispheres, considerably flattened. Three series of tracks in relief, each track about four inches in length, belonging to the *pachydactyli* of Prof. HITCHCOCK, accompany the rain drops.

No. 4. A SLAB OF MICACEOUS SANDSTONE from Turner's falls on the Connecticut river, twenty-seven by twenty-four inches.

This slab exhibits upon its upper surface two lines of three-toed footprints, impressed upon the stone. The tracks are four inches in length, and the stride nine inches. There are in each line three consecutive footprints, and the alternating right and left feet can be distinctly recognized; the toes of the right feet being curved towards the left, and the toes of the left towards the right. The tracks belong to the *pachydactyli* of Prof. HITCHCOCK.

No. 5. A SLAB OF MICACEOUS SANDSTONE from Turner's falls on the Connecticut river, three feet by two feet four inches.

There are twenty-one tracks of various sizes impressed upon the upper surface of this specimen. In some instances, consecutive series of tracks can be traced. The one most illustrative is a consecutive series of three right and left tracks, which are each four and a half inches in length, and the stride or step twelve inches. The tracks are three-toed, and belong to Prof. HITCHCOCK's *pachydactyli*.

No. 6. A SLAB OF MICACEOUS SANDSTONE from Turner's falls on the Connecticut river, twenty-seven inches by nineteen.

The upper surface is bright and smooth, and the impressions very distinct. There are two perfect impressions of the *Ornithoidichnites tuberosus* of Prof. HITCHCOCK, each five inches in length, on the upper surface of the slab, deeply impressed, and distinctly showing the phalangeal, tarsal and ungual depressions of the feet. There are also several four-toed tracks, the largest of which is two inches, and the smallest half an inch in length.

ORDER TETRAPODICHNITES (HITCHCOCK). *Four-footed tracks.*

- No. 7. A SLAB OF GRAY, PERFECTLY SMOOTH, MICACEOUS SANDSTONE, thirteen by four and a half inches, from Turner's falls on the Connecticut river.

On the upper surface of the specimen are impressed four consecutive right and left tracks of the hind feet, and also four tracks of the front feet. The hind tracks are an inch and a half in length, and the stride is six inches. The front tracks are placed a little outwards and near the front of the hind tracks, and are only one-fourth of their size : they resemble in appearance the feet of the snapping turtle (*Chelonura serpentina*). There are also several coprolites imbedded on the surface of the slab. These tracks are named by Prof. HITCHCOCK, *Batrachoidichnites deweyi*. See American Journal of Science for October 1844, Vol. xlvii, p. 308, for description and drawing.

- No. 8. A SLAB OF GRAY, PERFECTLY SMOOTH, MICACEOUS SANDSTONE, from Turner's falls on the Connecticut river, twenty by five and a half inches.

This slab is the counterpart or cast of the foregoing (No. 7); and presents on its under side six consecutive right and left tracks of the front and also of the hind feet, in relief. The hind tracks are an inch and a half in length, while the front tracks are not more than one-fourth of that size. This is, without doubt, the most perfect and illustrative specimen of the *Batrachoidichnites deweyi* ever found.

- No. 9. A SLAB OF GRAY MICACEOUS SANDSTONE from Turner's falls on the Connecticut river, six and a half by three inches.

This slab presents, upon its upper surface, six consecutive prints of the right and left hind feet of a small quadruped. The tracks are five-eighths of an inch in length, and resemble the *Batrachoidichnites deweyi* of HITCHCOCK. The step or stride is only two inches in length. The hardness of the mud at the time the quadruped traversed it, and the smallness of its front feet, are undoubtedly the reasons why they made no impressions on the surface.

### FOSSIL FISHES.

There are eighteen slabs of BITUMINOUS SHALE from the celebrated locality at Sunderland (Massachusetts), each of which has upon its surface a beautiful FOSSIL FISH.

These fish vary in length from five inches to a foot, and are generally perfect specimens. In most of the specimens, the scales and fins are distinct and well defined; and several of the fish are accompanied with coprolites. The fish belong to the Genus ESCHYPTERUS of EDGERTON.



There are also two slabs of SHALE from the celebrated locality at Boonton (New-Jersey), each having upon its surface a perfect FOSSIL FISH, the one seven and the other nine inches in length.

This locality in New-Jersey has been pronounced by geologists to belong to the era of the New-Redsandstone formation, and consequently is of the same age with the Sunderland shales.

There are also in the collection obtained at the sale of Mr. MARSH'S Cabinet, thirty-one beautiful FOSSILS of the Eocene period, from Cuba, the species of which have not yet been determined.

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## FOSSILS TAKEN FROM THE STATE CABINET.

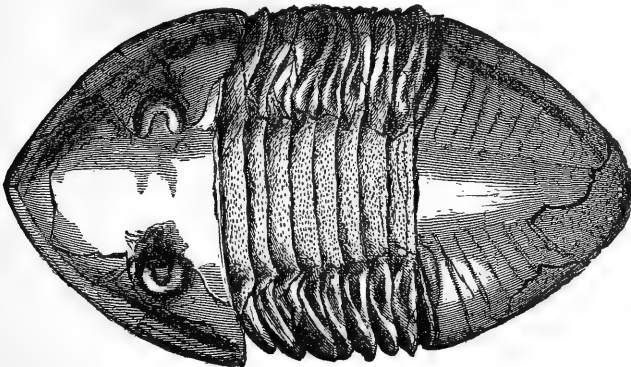
### ISOTELUS GIGAS.

### THE GIANT ISOTELUS.

VANUXEM, Geol. Rep. New-York, pa. 47.

EMMONS, Geol. Rep. New-York, pag. 389.

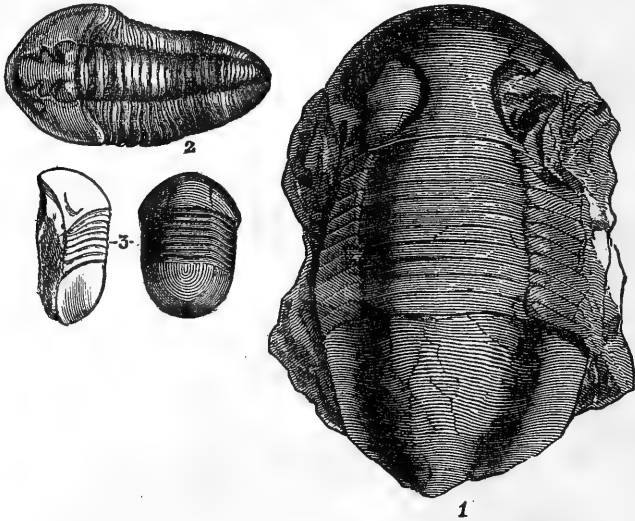
HALL, Pal. New-York, Vol. 1, p. 231.



The above woodcut (reduced one-third in size from the original fossil) was delineated from a beautiful specimen which was found in the Trenton limestone at Middleville, Herkimer county, New-York, by the late Mr. WADLEIGH. It was purchased from Mr. Wadleigh by the late LARDNER VANUXEM, at the time he was employed as one of the State geologists, for the sum of ten dollars; who, with his characteristic liberality, presented it to the State Cabinet (See VANUXEM'S Geology of New-York, page 46).

The fossil was purloined from the State Collection in the year 1844; and the above cut is given, in order to enable scientific individuals, and the curators of public collections and museums, to know and identify it, should it come under their observation.

The three original fossils from which the following woodcuts were delineated, were also purloined from the State Collection, at the same time (1844) with the *Isotelus gigas* above described :



No. 1. BUMASTUS TRENTONENSIS. EMMONS, Geol. Rep. N.Y. p. 390.  
ILLÆNUS TRENTONENSIS. HALL, Pal. N. York, Vol. i, p. 230.

The following description of this fossil is copied from Professor EMMONS's Geology of New-York, page 390 :

No. 1 has not been found in place : the fine specimen from which the drawing was made, was found by a laborer in Hogansburgh, in a boulder of bituminous limestone. The boulder is identical with the black limestone of Montreal, which contains the Trenton fossils. Upon the fragment containing the specimen is discoverable a portion of a *Strophomena*, known also to belong to this rock. There can be no doubt, therefore, of the position it occupies; but usually where a fossil has been obtained from a boulder, no account has been taken of it. No. 1 is allied both to *Bumastus* and *Isotelus*, or seems to be an intermediate genus. It is probably a rare fossil.

Prof. HALL, in the first volume of the Palæontology, remarks that

“This rare fossil was obtained by Dr. EMMONS from a boulder near Hogansburgh (N.Y.); but from other associated fossils, it clearly belongs to the Trenton limestone. The original of the perfect specimen has been lost, and our description is taken from a plaster cast.”

No. 2. CALYMENE SENARIA (CONRAD).

EMMONS, Geol. New-York, pa. 390.

HALL, Pal. New-York, Vol. i, p. 233.

The following are Prof. EMMONS's remarks on this fossil, on page 390 of his Geology of New-York :

No. 2. The *Calymene senaria* is one of the most abundant fossils in this rock (Trenton limestone). In the Second District it is found at Glen's-Falls, Essex and Plattsburgh; and it is also found at Cumberland Head, on the opposite shore in Vermont, where the slaty limestone of the trenton rock is found.

No. 3. ILLÆNUS TRENTONENSIS. EMMONS, Geol. Rep. N. York, p. 390.

ILLÆNUS CRASSICAUDA. HALL, Pal. New-York, Vol. 1, p. 229.

Prof. EMMONS's description of this fossil, on page 390 of his Geology, is as follows :

No. 3. For this small trilobite, I am indebted to my friend Dr. CRAWE of Watertown. It seems to be rather rare, though it has been found in the valley of the Mohawk. The specimen from which the drawing was taken was found at Watertown.

[The text in this image is extremely faint and illegible due to low contrast and high noise. It appears to be a multi-paragraph document, possibly a letter or a report, but the specific content cannot be discerned.]

# Appendix.

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**E.**

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## **ADDITIONS**

TO THE

**HISTORICAL AND ANTIQUARIAN COLLECTION,**

IN THE

**STATE CABINET OF NATURAL HISTORY,**

FROM JANUARY 1, 1853, TO JANUARY 1, 1854.



## HISTORICAL AND ANTIQUARIAN COLLECTION.



### *DONATIONS.*

FROM MATTHEW STEVENSON, M.D., OF NEWBURGH, ORANGE COUNTY, N.Y.

1. A PIECE OF CLOTH, brought from Otaheite by Capt. Cook. It was given to Dr. STEVENSON by a lady, long since dead, a relative of the late Capt. Cook.
2. SPEAR-HEAD (chert). From Mexico.
3. ARROWHEAD (chert). From Mexico.
4. FIVE ARROWHEADS (chert). Found in the vicinity of Cambridge, Washington county, N.Y.
5. A STONE AXE. Found some twenty years since near Scaghticoke point, Rensselaer county.
6. A STONE CHISEL. Found in Newburgh, Orange county.]



FROM AUGUSTUS RAWLINGS, OF NEW-YORK.

A DAGGER, from the Sandwich islands.



FROM WILLIAM E. TALLMAN, ESQ., OF TULLY, ONONDAGA CO.

AN AMULET, made of green novaculite.

This unique relic was found on the farm of WILLIAM TALLMAN, esq. in the town of Tully, Onondaga county, N.Y.

FROM MR. ANDREWS, WARDEN OF SINGSING PRISON, WEST-CHESTER COUNTY, N.Y.

A MUSKET BALL, from the Battlefield of Whiteplains.

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FROM JAMES LESLIE, OF ALBANY.

A BLANKET MADE OF BARK, by natives of the Pelew islands, which are situated near the Caroline islands in the North Pacific Ocean.

ALSO THREE SASHES, worn by the natives on their hunting expeditions.

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PRESENTED BY ALBERT A. BISSELL, OF GREENBUSH, RENSSELAER COUNTY, N.Y.

A TAMPION; A PIECE OF OAK WOOD; AN IRON GRAPE-SHOT, AND TWO MUSKET BALLS.

These relics were obtained by the donor near Valcour's island in Lake Champlain, in the summer of 1851, from the wreck of the Schooner *Royal Savage* (one of the vessels of the American fleet), which was grounded and burned to the water's edge during the engagement with the British fleet on the eleventh day of October 1776.

The British fleet was composed of the following vessels: Ship *Inflexible*, Capt. PRINGLE, carrying eighteen 12-pounders; two schooners, one with fourteen, the other with twelve 6-pounders; a flat-bottomed radeau, with six 24's and six 12's; and twenty small craft, each carrying a gun from 9 to 24-pounders, and several long boats, besides boats for baggage stores, etc.

The Americans had only two brigs, one corvette, one sloop, three galleys and eight gondolas, the largest vessel carrying only twelve 6- and 4-pounders. These were under the command of ARNOLD, who drew them up between Valcour's island and the western shore of the lake, where they were attacked. They fought four hours, and the British at last retreated; but whilst making his way towards Crown point, ARNOLD was overtaken, and nearly all the squadron fled up the lake. He continued fighting as long as possible; and, as a last resort, to prevent his vessels from falling into the hands of the British, he caused his flotilla to be run on shore and set on fire. The vessels were burned to the water's edge, and the hulks remain to this day almost as sound as when first stranded.

This was the first naval engagement with Great Britain.



## FROM GEN. J. WATTS DEPEYSTER, OF TIVOLI, DUTCHESS CO.

A BOW AND BUNDLE OF ARROWS, purchased from one of the guards of KEY-ING, who negotiated the Chinese Treaty with the English. His escort was a part of the Imperial Tartar Body from Peking.

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## FROM PIERRE VAN CORTLANDT.

A CHERT ARROWHEAD, found a short distance west of the railroad station in Croton, Westchester county.

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## FROM JOHN GEBHARD JUNIOR, OF ALBANY.

A N ANTIQUE COPPER, and also an EARTHEN PIPE ; plowed up on the farm of DAVID SHAFER, in the town and county of Schoharie.

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## FROM HIRAM WOOD.

TWO INDIAN GOUGES, made of sandstone, in perfect preservation. They were found in digging the cellar for a house in the village of Caldwell, situated at the head of Lake George.

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## FROM CORNELIUS KILMER, OF ALBANY.

A WAR-CLUB, from the Fiji islands.

ALSO A CHINESE SAW.

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## FROM CHARLES WOOLWORTH, OF ALBANY.

A STONE GOUGE, found on the banks of the Seneca river, in the town of Vanburen, Onondaga county.

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## FROM DR. CHARLES MARTIN, OF THE U. S. NAVY.

A REPEATING RIFLE, with a screwdriver and wrench.

A WOODEN BOW ; ALSO TWENTY-FOUR ARROWS with bone points, FIVE with iron points, and ONE with a stone point : from Puget Sound.

A WOODEN BOW ; ALSO NINETEEN ARROWS with chert points : from California.

- A WOODEN BOW ; ALSO SIXTEEN ARROWS made of reeds, with wooden points : from the Guaranee Indians of South America.
- AN ARROW with a chert point : from Terra del Fuego.
- A BONE FISHHOOK : from Puget Sound.
- AN IDOL MADE OF BONE : from the Kingsmill group of islands in the South Pacific Ocean.
- AN IDOL IN THE FORM OF A BIRD, made of *terra cotta*, found in the ruins near Isabel in Guatemala.
- AN EARTHEN PIPE, obtained from the natives residing on the banks of the Amazon river, eighty or ninety miles above the city of Para in Brazil.
- AN OSTRICH EGG, with a description on its surface, in raised letters, of the Oriental Republic of Oruguay. This effect is produced by writing on the egg with melted beeswax, or any other substance not affected by acids, and then placing it in vinegar.
- A PIECE OF TAPPA CLOTH.
- A STRAINER, made of bark, from Africa.
- TWO SETS OF BANGLES (18) : ornaments made of seashells, and worn upon the arms and ankles by females in the East Indies.
- A CHINESE CHOPSTICK, used in eating.
- A CHINESE CANNON-BALL, made of stone : picked up at one of the Bogue forts near Canton.

## CATALOGUE OF INDIAN RELICS,

OBTAINED IN THE VALLEY OF THE CONNECTICUT RIVER BY THE  
LATE DEXTER MARSH OF GREENFIELD, MASSACHUSETTS;

And Purchased at the Administrator's Sale of his Cabinet in September 1853.

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No. 1. A CARD, ON WHICH ARE FASTENED THIRTY-SIX ARROWHEADS.

These arrowheads are all made of hornstone of various shades of color, and vary in length from two to five inches : they present several forms of the arrowhead. From the Connecticut-river valley.

No. 2. A CARD CONTAINING FORTY-NINE ARROWHEADS, varying in length from one to three inches, made of hornstone of various shades of color and forms of workmanship.

There are also on the card TWELVE ARROWHEADS made of subhyaline quartz, varying from one to two inches in length.

From the Connecticut-river valley.

No. 3. A CARD CONTAINING SIXTEEN ARROWHEADS, from one to three inches in length, made of hornstone ; THREE SPEARHEADS made of the same material, four inches in length ; AND ALSO THREE SINGULAR-SHAPED SPECIMENS made of hornstone, and respectively three, four and five inches in length, the largest of which is three inches in width, and only half an inch in thickness.

Their form is a lengthened oval, with one end suddenly brought to a point. From the Connecticut-river valley.

Specimens similar in form have been found in the Western mounds. In the Description of the Ancient Monuments of the Mississippi Valley by E. G. SQUIER and E. H. DAVIS, published in Vol. I of the Smithsonian Contributions to Knowledge, on page 211, fig. 100, is an exact representation of these specimens. This figure was copied from a specimen found in a mound on the banks of the Scioto river, three miles above the town of Chillicothe. The uses to which these relics were applied, are not fully understood. On page 211, above referred to, the authors remark : ' It has been suggested that they were perhaps designed to be used in the construction of swords, or offensive weapons, on the plan of those made by the ancient Mexicans. They were formed by slitting a cane or other slender piece of tough wood, and inserting blades of stone, usually slips of obsidian, upon either side. These were retained in their place by firmly lashing the separated wood together, and filling the cavities with some hard variety of gum.

- No. 4. ELEVEN ARROWHEADS, from one to one and a half inches in length, made of milky quartz.  
From the Connecticut-river valley.
- No. 5. TWENTY-FOUR ARROWHEADS, manufactured of subhyaline quartz, from one to one and a half inches in length.  
From the Connecticut-river valley.
- No. 6. TWENTY-FIVE ARROWHEADS OF SUBHYALINE QUARTZ, from one to two inches in length.  
From the Connecticut-river valley.
- No. 7. TEN SPEARHEADS MADE OF BROWN QUARTZ.  
From the Connecticut-river valley.
- No. 8. SEVENTEEN ARROWHEADS, OF DIFFERENT VARIETIES OF QUARTZ.  
From the Connecticut-river valley.
- No. 9. FIFTEEN ARROWHEADS MADE OF HORNSTONE, of various forms and sizes. From the Connecticut-river valley.
- No. 10. TWENTY-ONE ARROWHEADS OF HORNSTONE, from one to two inches in length, of various styles of workmanship.  
From the Connecticut-river valley.
- No. 11. SEVENTEEN ARROWHEADS OF HORNSTONE, from one to two and a half inches in length, of several different forms.  
From the Connecticut-river valley.
- No. 12. SIXTEEN ARROWHEADS OF VARIEGATED HORNSTONE, from one to two and a half inches in length, of various forms.  
From the Connecticut-river valley.
- No. 13. TWENTY FRAGMENTS OF SPEAR AND ARROWHEADS OF HORNSTONE.  
From the Connecticut-river valley.
- No. 14. TWO SPEARHEADS, each five and a half inches in length, of hornstone. From the Connecticut-river valley.
- No. 15. THREE ARROWHEADS OF COMPACT SLATE.  
From the Connecticut river valley.
- No. 16. STONE AXES ; eleven specimens.

These axes vary in length from three to nine inches, and in width from two to five inches. They are made of different varieties of hard, compact stone, and exhibit in workmanship the various forms of the stone axe. A groove is worked transversely around each axe; which indicates that it was to be used by bending a withe or green slip of wood of proper siz around it, in the line of the groove.

From the Connecticut-river valley.

**No. 17. FLESHING INSTRUMENT, OR STONE CHISEL OF SCHOOLCRAFT ;  
HAND-AXE, OF SQUIER & DAVIS : sixteen specimens.**

These specimens vary in length from two and a half to nine inches, and exhibit the various forms of the instrument. Among the materials from which they were manufactured, are greenstone, porphyry, sienite, etc.

From the Connecticut-river valley.

**No. 18. HEAD OF A WAR-CLUB.**

This singular relic is made of the freestone of the Connecticut valley. Its shape is an oval, six and a half inches in length by four and a half inches in width, and three inches in thickness. There are two grooves, the one passing longitudinally and the other transversely around the stone. These grooves were made for the purpose of firmly securing the stone to the end of a club; and it was undoubtedly a formidable weapon.

From the Connecticut-river valley.

**No. 19. STONE PESTLE : five specimens.**

These specimens vary from eleven to twenty-three inches in length. They are made of greenstone and micaceous sandstone.

From the Connecticut-river valley.

**No. 20. A BOWL MADE OF STEATITE (SOAPSTONE).**

This bowl is seven and a half inches in length, five inches in width, and two and a half inches in depth.

From the Connecticut-river valley.

**No. 21. A GORGET OR AMULET.**

This unique relic is made of a compact variety of green slate. The length of the specimen at the base is four inches; width, three-fourths of an inch, and height one inch. At each end a projection rises like a foot; the one making an angle with the base of 125, and the other of 145 degrees. The projections are respectively an inch and a half, and two inches in height. Length of the specimen between the upper points of the projections, six inches. At each end of the base, a diagonal hole is perforated through the corner made by the base with the projection.

From the Connecticut-river valley.

**No. 22. A GORGET OR AMULET.**

This relic is made of a compact variety of green slate. The specimen is broken, and the fragment comprises about one-half of the original. It is constructed of the same material as No. 21, and is similar to it in character, although differing somewhat in shape.

From the Connecticut-river valley.

**No. 23. A PIPE OF BAKED CLAY.**

The specimen is four inches in length: it is smoothly moulded, and has on the stem side of the bowl, in high relief, the figure of an owl.

From the Connecticut-river valley.

No. 24. A PIPE OF BAKED CLAY.

This pipe is smoothly moulded, and made of fine red clay. From Connecticut-river valley.

No. 25. VARIOUS FRAGMENTS OF POTTERY (*terra-cottas*).

These fragments, from their color, indicate that they were made from different varieties of clay. The exteriors of the fragments are generally tastefully ornamented with lines, dots, etc.

From the Connecticut-river valley.

No. 26. MOCCASIN NEEDLE MADE OF BONE.

This instrument is made from the *ulna* of the deer, sharpened at one end. From the Connecticut-river valley.

No. 27. AN AMULET OR GORGET.

This specimen is made of green slate, and the surface is very much corroded. It is in the form of a lengthened ellipse, with the ends brought to a point. One of the points is broken off; and the fragment remaining measures six inches in length, two inches in width at the widest part, and a half an inch in thickness.

From the Connecticut-river valley.

*The following specimens, which also formed a part of the Indian Collection of the late DEXTER MARSH, were obtained in the valley of the Mississippi river, and were included in the purchase of the preceding collection of the Connecticut-river valley.*

No. 28. INDIAN ARROWHEADS : eight specimens.

These arrowheads are made of jasper and the finest variety of hornstone, of various shades of color : they are from two and a half to three and a half inches in length, of various forms and great beauty of workmanship. Taken from the mounds in the Mississippi valley.

No. 29. FLESHING INSTRUMENT, or STONE CHISEL of SCHOOLCRAFT ;  
HAND-AXE of SQUIER & DAVIS : four specimens.

These relics are composed of jasper : they vary in length from two to three inches, and are worked down to a sharp smooth edge. The label accompanying the specimens describes them as being taken from Indian tombs in the valley of the Mississippi.

No. 30. A LARGE PIPE MADE OF STEATITE (soapstone).

The bowl of the pipe is two and a half inches in diameter, and four and a half inches in height; and the portion intended for the insertion of the stem is two and a half inches in diameter, and five inches in length. The label gives the locality from which it was obtained, "Talladega County, Alabama;" and remarks 'that there is none of this kind of

stone found in that part of the State, and that it is supposed to contain a percentage of silver.'

No. 31. TWO BEADS.

These beads are oval, half an inch in length, and made of a kind of enamel or paste, skilfully arranged in layers of various colors on the surface, and, when viewed at their poles, present variegated radii : they are of the Columbian period.

From an indian grave in the Valley of the Mississippi.

No. 32. TOOTH OF A PANTHER (incisor of *Felis concolor*).

From a mound in the Valley of the Mississippi.

No. 33. AN EGG-SHAPED STONE.

This specimen is made of sienite, and is two inches in length by one and a half inches in diameter. A groove is worked transversely around the stone, three-fourths of an inch from the point of the lesser end. The shape of the stone, and the groove around it, show conclusively that it was intended to be used by fastening a cord around the groove, and holding the other end in the hand or winding it around the wrist, like the modern *slung shot*. There is no label accompanying this specimen : consequently its locality is unknown. It is probably from the Mississippi valley.

Specimens similar in shape, but destitute of the groove, are frequently found in the Valley of the Mississippi. According to Messrs. SQUIER and DAVIS, they were used by being enclosed in a cover of leather, and fastened to one end of a thong, the other end being wound around the wrist.

The first part of the document is a letter from the Secretary of the Board of Education to the Board of Trustees of the University of the State of New York. The letter is dated January 10, 1870, and is addressed to the Board of Trustees at Albany. The letter discusses the progress of the Board of Education and the various reports that have been submitted to it. It also mentions the various committees that have been appointed and the work that they have done. The letter is signed by the Secretary of the Board of Education.

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# Appendix.

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COMMUNICATION

FROM

PROFESSOR GEORGE H. COOK,

LATE OF THE ALBANY ACADEMY, NOW OF RUTGERS COLLEGE, NEW-JERSEY,

ON THE NATURE OF THE SPECIMENS OF

SALT AND SALT WATER

PRESENTED BY HIM,

WITH AN ANALYSIS OF MOST OF THE SAME.



**T. ROMEYN BECK, LL.D.,**

**SECRETARY OF THE REGENTS OF THE UNIVERSITY OF NEW-YORK.**

**DEAR SIR :**

IN pursuing a series of investigations upon common salt, and its manufacture, I have collected and examined numerous specimens of salt, brine, etc. Considering the great interest which the people of the State of New-York have in the subject, I have thought these specimens might not inappropriately find a place in the State Cabinet of Natural History at Albany. Accompanying them is a list of the specimens, with their localities and the names of the persons who have furnished them to me ; also analyses of many of them, with some descriptive memoranda.

Should they be thought desirable, please to accept them for the State Cabinet.

Respectfully yours,

**GEORGE H. COOK.**

**RUTGERS COLLEGE, NEW-BRUNSWICK, N.J.**

December 15, 1853.

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## SPECIMENS OF SALT, BRINE, &c.

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	LOCALITIES.	FROM WHOM OBTAINED.
1 Solar salt, 1851.....	Onondaga salines.	The Superintendent.
2 Solar salt, 1853 .....	do .....	do .....
3 Boiled salt (front kettle) 1852,.....	do .....	do .....
4 Boiled salt, do 1853,.....	do .....	do .....
5 Boiled salt (mid. kettle) 1852,.....	do .....	do .....
6 Boiled salt, do 1853,.....	do .....	do .....
7 Boiled salt (back kettle) 1852,.....	do .....	do .....
8 Boiled salt, do 1853,.....	do .....	do .....
9 Salt made by S. B. Howd's process, do .....	do .....	do .....
10 Salt made in J. P. Haskins's pan ...	do .....	do .....
11 Salt condemned by the inspectors ..	do .....	do .....
12 Salt from Sawmill-run works near Pittsburgh (Pa.).	T. Bakewell, esq.	
13 Salt from Orr's works, near the same place.....	do .....	
14 Salt from Peterson's works, near same place.....	do .....	
15 Salt from Dr. Hale's works, No. 1, Kanawha (Va.).	Prof. J. Hall.	
16 Salt from do .... No. 2, do .....	do .....	
17 Salt from do .... No. 3, do .....	do .....	
18 Salt from do .... No. 4, do .....	do .....	
19 Salt from do .... No. 5, do .....	do .....	
20 Salt from do .... No. 6, do .....	do .....	
21 Salt no. 2, from Saltville, Washington county (Va.).	E. Meriam, esq.	
22 Salt no. 4, from do do .....	do .....	
23 Salt no. 6, from do do .....	do .....	
24 Salt no. 7, from do do .....	do .....	
25 Salt no. 8, from do do .....	do .....	
26 Salt, stoved.....	Northwich, Cheshire (Eng.).	J. B. Lobb, esq.
27 Salt, butter.....	do .....	do .....
28 Salt, marine butter ....	do .....	do .....

	LOCALITIES.	FROM WHOM OBTAINED.
29	Salt, fine common, Northwich, Cheshire (Eng.).	J. B. Lobb, esq.
30	Salt, common . . . . . do . . . . .	do . . . . .
31	Salt, rough common . . . do . . . . .	do . . . . .
32	Salt, extra rough common, do . . . . .	do . . . . .
33	Salt, british bay . . . . . do . . . . .	do . . . . .
34	Salt, fishery . . . . . do . . . . .	do . . . . .
35	Salt, Ashton's stoved . . . do . . . . .	Commercial.
36	Salt, stoved . . . . . Garston near Liverpool.	Works.
37	Salt from Jump's works, Winsford, Cheshire.	Works.
38	Salt, common . . . . .	— Palen, esq.
39	Salt, fishery . . . . . Garston near Liverpool.	Works.
40	Salt, stoved . . . . . Droitwich, Worcestershire.	— Noakes, esq.
41	Rock salt, crystals . . Northwich, Cheshire.	J. B. Lobb, esq.
42	Rock salt, common . . . . . do . . . . .	do . . . . .
43	Cheese salt . . . . . Rotterdam, Holland.	W. S. Campbell, esq.
44	Medium salt . . . . . do . . . . .	do . . . . .
45	Butter salt . . . . . do . . . . .	do . . . . .
46	Salt, common . . . . . Belgium.	— Higgins, esq.
47	Coarse salt . . . . . Dieuze, France.	The Director
48	Medium salt . . . . . do . . . . .	do . . . . .
49	Fine salt . . . . . do . . . . .	do . . . . .
50	Very fine salt . . . . . do . . . . .	do . . . . .
51	Grey salt . . . . . do . . . . .	do . . . . .
52	Ground rock-salt . . . . do . . . . .	do . . . . .
53	Rock-salt . . . . . do . . . . .	do . . . . .
54	Salt . . . . . Turks Island, W.I. . . .	E. Oakes, esq.
55	Salt . . . . . St. Martins, do . . . . .	do . . . . .
56	Salt . . . . . Curacao, do . . . . .	do . . . . .
57	Salt . . . . . Bonair, do . . . . .	do . . . . .
58	Salt . . . . . Rumkey, do . . . . .	do . . . . .
59	Salt . . . . . St. Kitts, do . . . . .	do . . . . .
60	Salt . . . . . Fortune islands, do . . . . .	do . . . . .
61	Salt . . . . . Anguilla, do . . . . .	do . . . . .
62	Salt . . . . . Cadiz, Spain. . . . .	do . . . . .
63	Salt . . . . . Lisbon, Portugal. . . . .	do . . . . .
64	Salt . . . . . Hyeres island, S. of France. . . do . . . . .	do . . . . .
65	Salt . . . . . Ivica, E. of Spain. . . . .	do . . . . .
66	Salt . . . . . Trapani, Sicily. . . . .	do . . . . .
67	Salt . . . . . Martha's Vineyard, U.S.	F. S. Pease, esq.

	LOCALITIES.	FROM WHOM OBTAINED
68 Salt .....	Isle of Rhé, France.	M. Joly.
69 Salt .....	Bouin, do	do .....
70 Salt .....	Noirmoutiers, do	do .....
71 Salt .....	Britany, do	do .....
*72 Salt from a salt lake 70 miles from Brownsville, Texas.		Capt. S. Van Vliet, U.S.A.
*73 Salt from the salt plain near Pilot Peak, Salt Lake.		Capt. Stansbury, U.S.A.
*74 Salt from Black Rock.....	Salt Lake.	do .....
75 Rock-salt .....	Carrickfergus, Ireland.	— Higgin, esq.
76 Thick blocking or scales....	Onondaga salines.	G. H. Cook.
77 Thin blocking or scales ....	do	do .....
78 Pannings.....	do	do .....
79 Oxide of iron, sediment from brine, from pump-house, Syracuse.		do .....
80 Oxide of iron, boiling brine.	Kanawha (Va.).	Prof. J. Hall.
81 Oxide of iron, hot brine....	do	do .....
82 Pannings ....	Saltville, Washington county (Va.).	E. Meriam, esq.
83 Skimmings.....	do	do .....
84 Brine from Syracuse wells...	Onondaga salines. . .	G. H. Cook.
85 Brine from a well at Salina..	do	do .....
86 Brine from a well at Liverpool,	do	do .....
87 Brine from British Salt Co.'s well, Northwich, Cheshire (Eng.).		J. B. Lobb, esq.
88 Brine from N. Ashton & Co.'s well,	do	do .....
89 Brine from .....	Dieuze, France.	The Director.
90 Brine from well at Sawmill run, Pittsburgh (Pa.).		T. Bakewell, esq.
91 Brine from.....	Kanawha salines (Va.).	Prof. J. Hall.
92 Brine from.....	Saltville (Va.).	E. Meriam, esq.
*93 Brine from a salt lake 70 miles from Brownsville, Texas.		Capt. S. Van Vliet, U.S.A.
94 Bittern from.....	Onondaga salines.	
95 Bittern from.....	Kanawha salines.	Prof. J. Hall.
96 Bittern or leach brine, Northwich, Cheshire (Eng.).		J. B. Lobb, esq.
97 Hardpan from shaft of a rock-salt mine, do		do .....
98 Hardpan from do do		do .....
99 Rock-salt from.....	Cheshire, England.	do .....
100 Rock-salt from.....	do	do .....
101 Rock-salt from.....	do	do .....
102 Rock-salt from the upper bed of rock, Cheshire.		do .....
103 Rock from shaft of a rock-salt mine, do		do .....

\* Furnished by Prof. SPENCER F BAIRD.

	LOCALITIES.	FROM WHOM OBTAINED.
104	Rock with veins of salt from shaft of a rock-salt mine, Cheshire (Eng.).	J. B. Lobb, esq.
105	Crystals of selenite from solar salt-fields, Onondaga salines.	L. Conkey, esq.
106	Crystals of selenite from Nolton & Co.'s settling cisterns, Onondaga salines. . . . .	do . . . . .
107	Artificial oolite from Howd's salt-works, Syracuse.	S. B. Howel, esq.
108	Salt water from a well sunk at Montezuma in 1842, 605 feet.	E. Meriam.
109	Salt water from a well sunk at Lockpit, Wayne county, five miles east of Clyde . . . . .	do . . . . .
116	Salt water from a well sunk in 1846 near Little Sodus Bay (N.Y.) . . . . .	do . . . . .
111	Salt water taken in 1844 from a spring in the wilderness in Percy township, near the River Trent, Upper Canada, about thirty miles east of Lake Ontario . . . . .	do . . . . .
112	Salt from the Great Salt Lake, Utah Territory, obtained by Capt. Stansbury in 1849 . . . . .	do . . . . .
113	Water from the Dead Sea, by Fisher Howe of Brooklyn, January 19, 1850 . . . . .	do . . . . .
114	Salt water from the well of Findlay, Mitchell & Co., Saltville, Washington county (Va.), January 31, 1844 . . . . .	do . . . . .

The specimens of salt from 1 - 11 inclusive were made from Onondaga brines, and are average ones of that salt. Being made by different processes of manufacture, they vary considerably in the size and form of their crystals, or grains, and in their specific gravities; but in chemical composition they are very much alike.

## ANALYSES.

		Chloride of sodium. (Salt.)	Sulphate of lime. (Plaster.)	Chloride of calcium. (Bittern.)	Chloride of mag- nesium. (Bittern.)	WATER.
1.	Solar salt . . . . . 1851 . . . .	96.70	1.43	0.05	0.03	1.79
2.	Solar salt . . . . . 1853 . . . .	97.91	0.67	0.06	0.07	1.29
3.	Boiled salt (front kettle) . . 1852 . . . .	96.19	1.81	0.17	0.09	1.74
4.	Boiled salt ( do ) . . 1853 . . . .	97.28	1.46	0.09	0.07	1.10
5.	Boiled salt (middle kettle), 1852 . . . .	96.82	1.41	0.15	0.08	1.54
6.	Boiled salt ( do ) . . 1853 . . . .	97.41	1.26	0.15	0.18	1.00
7.	Boiled salt (back kettle) . . 1852 . . . .	96.81	1.13	0.18	0.03	1.80
8.	Boiled salt ( do ) . . 1853 . . . .	96.41	1.51	0.21	0.27	1.60
9.	Salt made by S. B. Howd's process . . . .	97.95	0.04	0.04	0.03	1.94
10.	Salt made in an iron pan by Haskins . .	97.88	0.17	0.19	0.16	1.60
11.	Salt condemned by the inspectors . . . .	98.11	0.67	0.02	0.10	1.10



The specimens from 12 - 14 are from near Pittsburgh, Penn. ; and those from 15 - 20 are from the Kanawha salines : they are nearly alike in the character of their impurities. They are made by artificial heat, and from weak brines.

## ANALYSES.

	Chloride of sodium.	Chloride of calcium.	Chloride of magnesium.	WATER.
12. Salt from Sawmill run, near Pittsburgh,	89.77	1.78	0.55	7.90
13. Salt from Orr's works, do ..	96.70	0.53	0.07	2.70
14. Salt from Peterson's works, do ..	95.93	0.74	0.13	3.20
15. Salt No. 1, Kanawha .....	91.31	1.26	0.43	7.00
16. Salt No. 2, do .....	83.39	1.48	0.43	9.70
17. Salt No. 3, do .....	86.65	1.48	0.47	11.40
18. Salt No. 4, do .....	87.00	2.14	0.56	10.30
19. Salt No. 5, do .....	83.52	2.58	0.72	10.10
20. Salt No. 6, do .....	82.75	3.68	1.67	11.90

The specimens from 21 - 25 inclusive are from Saltville near Abingdon, Washington county ( Va.). These are remarkably pure specimens of salt : they are all made by artificial heat.

## ANALYSES.

	Chloride of sodium.	Sulphate of lime.	Sulphate of magnesia	WATER.
21. Salt No. 2, Saltville .....	98.45	0.95	0.20	0.40
22. Salt No. 4, do .....	99.01	0.20	0.09	0.70
23. Salt No. 6, do .....	99.18	0.27	0.05	0.50
24. Salt No. 7, do .....	99.11	0.68	0.11	0.10
25. Salt No. 8, do .....	98.61	1.02	0.27	0.10

The specimens from 26 - 35 were made from the brine at Northwich, Cheshire, England : 38 and 39 are made from British rock salt dissolved in sea-water ; 37 and 38 are from the brine at Winsford, Cheshire, Eng. ; 40 is from brine at Droitwich, Worcestershire, Eng. ; 43 to 46 are from British rock salt dissolved in fresh water. They are all made by artificial heat.

## ANALYSES.

	Chloride of sodium.	Sulphate of lime.	Chloride of calcium.	Chloride of magnesium.	WATER.
26. Stoved salt .....	98.53	1.26	trace.	0.01	0.20
27. Butter salt .....	97.22	1.75	trace.	0.01	1.02
28. Marine butter salt .....	97.89	1.46	trace.	0.01	0.64
29. Fine common salt .....	98.28	0.76	0.01	0.01	0.94
30. Common salt .....	96.36	1.17	0.01	0.02	2.44
31. Rough common salt .....	96.53	1.61	0.01	0.02	1.84
32. Extra rough common salt ..	95.46	1.46	0.01	0.03	3.04
33. British bay salt .....	96.77	0.76	trace.	0.03	2.44
34. Fishery salt .....	96.98	0.20	0.01	0.03	2.78
35. Stoved Ashton's salt .....	97.59	1.67	0.01	0.03	0.70
36. Stoved salt .....	98.21	1.50	trace.	0.09	0.20
37. Butter salt .....	97.59	1.76	trace.	0.15	0.50
38. Common salt .....	97.90	1.26	trace.	0.04	0.80
39. Fishery salt .....	93.09	0.85	trace.	0.56	5.50
40. Stoved salt .....	96.93	3.05	0.00	0.02	0.00
41. Rock-salt (crystal) .....	100.00	0.00	0.00	0.00	0.00
42. Rock-salt (common) .....	99.52	0.46	0.00	0.02	0.00
43. Holland cheese salt .....	97.11	0.56	trace.	0.13	2.20
44. Holland medium salt .....	97.06	0.70	trace.	0.14	2.10
45. Holland butter salt .....	98.46	0.88	trace.	0.06	0.60
46. Belgium salt .....					

The specimens from 47 - 53 are from Dieuze in the Department La Meurthe in France. The brine, as raised from the well, is weak, but is brought to saturation by the addition of rock-salt. Artificial heat alone is used in preparing this salt.

## ANALYSES.

	Chloride of sodium.	Sulphate of lime.	Sulphate of magnesia.	WATER.
47. Coarse salt .....	95.85	1.09	0.96	2.10
48. Medium salt .....	97.92	0.75	0.33	1.00
49. Fine salt .....	97.59	1.02	0.89	0.50
50. Very fine salt .....	97.64	1.09	0.87	0.40
51. Grey salt .....	97.67	1.29	0.14	0.90
52. Ground rock-salt .....	97.45	2.35	0.00	0.20
53. Rock-salt .....	97.70	2.05	0.15	0.10

The specimens from 54 - 72 are made from sea-water, or from salt ponds, by solar evaporation : 73 and 74 are from Salt Lake ; 75 is from a new rock-salt mine discovered at Carrickfergus, Ireland, last year.

## ANALYSES.

	Chloride of sodium.	Sulphate of lime.	Chloride of magnesium.	Sulphate of magnesia and soda.	WATER.
54. Turks Island salt.....	96.76	1.56	0.14	0.64	0.90
55. St. Martins salt .....	97.21	0.54	0.26	0.24	1.75
56. Curacao salt .....	99.85	0.12	0.03	0.00	0.00
57. Bonair salt .....	97.31	0.60	0.21	0.84	1.04
58. Rumkey salt.....	94.75	0.78	0.57	0.66	3.24
59. St. Kitts salt .....	99.77	0.08	0.01	0.00	0.14
60. Fortune islands salt .....	97.45	1.43	0.01	0.27	0.84
61. Anguilla salt .....	99.18	0.08	0.11	0.04	0.59
62. Cadiz salt.....	95.76	0.75	0.57	0.48	2.44
63. Lisbon salt .....	94.17	0.49	1.11	1.39	2.84
64. Hyeres island salt .....	93.13	0.61	1.04	0.68	4.54
65. Ivica salt .....	93.06	1.09	0.66	2.49	2.70
66. Trapani salt .....	96.78	0.41	0.49	0.68	1.64
67. Martha's Vineyard salt ....	94.91	1.42	0.24	0.19	3.24
68. Isle of Rhé salt .....					
69. Bouin salt.....					
70. Noirmoutiers salt .....					
71. Britany salt .....	95.04	1.76	0.60	0.00	2.60
72. Texas salt.....	99.46	0.10	0.00	0.30	0.14
73. Salt Lake salt .....	97.61	1.03	0.00	0.08	1.28
74*. Salt lake salt .....	.....	.....	.....	.....	0.68
75. Irish rock-salt .....	96.28	3.50	0.00	0.08	0.14

The specimens 76 and 77 consist of sulphate of lime and common salt; the salt varying in amount from 50 to 95, and even 98 per cent of the whole.

78, 83 and 84 are sulphate of lime, with a very small portion of salt, and from 5 to 20 per cent of water.

79, 80, 82 consist essentially of oxide of iron, with a very little carbonic acid : salt, and in 89 sulphate of lime, are also mixed with the oxide of iron.

The specimens from 85 - 97 inclusive are brines and bitter-waters or bitters.

\* This is all sulphate of soda.

## ANALYSES.

	Specific gravity.	Per cent of dry matter.	Chloride of sodium.	Sulphate of lime.	Sulphate of magnesia.	Chloride of calcium.	Chloride of magnesium.	Oxide of iron.
85.	1.142	18.5	95.866	2.54	0.00	0.90	0.69	0.004
86.	1.122	16.1	95.312	3.03	0.00	0.93	0.72	0.008
87.	1.122	16.1	95.328	2.30	0.00	1.52	0.85	0.002
88.	1.200	26.2	98.070	1.57	0.00	0.13	0.23	0.000
89.	1.190	25.1	97.920	1.66	0.00	0.15	0.27	0.000
90.	1.122	15.2	94.870	1.83	3.30	0.00	0.00	0.000
91*.	1.019	2.8	81.270	0.00	0.00	13.93	4.80	
92*.	1.073	9.2	79.450	0.00	0.00	16.43	4.07	
93*.	1.198	26.4	98.390	1.22	0.39	0.00	0.00	
94.	1.187	24.9	97.080	0.82	2.10	0.00	0.00	0.000
95.	1.242	33.3	49.190	0.08	0.00	26.31	24.42	0.000
96.	1.312	37.3	00.160	0.00	0.00	77.86	21.98	0.000
97.	1.206	26.5	97.100	2.04	0.00	0.37	0.49	0.000

\* These brines all contain oxide of iron, but its amount has not been estimated.

Besides the constituents mentioned above, carbonic acid is found in several of these brines. In the Onondaga brines, I have not found more than one cubic inch to a gallon of the brine. The Kanawha brine contains a considerable quantity of bromine. Both iodine and bromine are found in the Onondaga and in the Cheshire brines. Potash has not been found in those from Onondaga or from Kanawha.

The specimens from 98 - 105, with those numbered 41 and 42, represent the different strata passed through in sinking a shaft for a rock-salt mine in Cheshire, England. The following is the account of these, in the order in which they are met, as given me by an experienced miner :

- 2 feet of soil.
  - 3 feet of *fox-bench*, or *hardpan*.
  - 36 feet of *marl*, *indurated clay* (98) & (99).
  - 7 feet of open gravel.
  - 90 feet of *metal* ; marly earth with seams of crystallized gypsum, the latter most abundant near the bottom (100), (101) & (102).
  - 75 feet of rock-salt (103).
  - 30 feet of stone, red and mottled with veins of red rock-salt (104)&(105).
  - 75 feet of rock-salt.
  - 15 feet of rock-salt : this layer contains less earthy matter than those above or below it, and is the only one worked (41) & (42).
  - 180 feet of rock-salt has been passed through below this, and still the bottom has not been reached.
- 
- 168 feet of rock and earth.
  - 345 feet of rock-salt.
- 
- 513 feet.

The specimens from 109 - 115 were presented by E. MERIAM, esquire, of Brooklyn : they were accompanied by several others which have already been mentioned, and by the following descriptive notes, the numbers of which correspond with those of the preceding list :

- 93. "Salt water from a shaft sunk in the Holston salt mines, at Saltville, Washington county, Virginia. This bottle of brine was received in the spring of 1846, from THOMAS L. PRESTON, esquire."
- 21. "Salt from the Holston salt wells, Saltville. A kettle was filled with the brine, and a broad pan placed at the bottom, and carefully withdrawn previous to the commencement of ebullition."
- 83. "The matter caught in the pan previous to the boiling of the brine of (21)."
- 22. "Salt from Saltville. The brine from which this specimen was made, was skimmed previous to boiling."
- 84. "Skimmings of the kettle from which (22) was made."
- 23. "Salt from Saltville. Brine as it came from the well, settled with alum, say 2 lbs. to 6000 gallons of brine."

24. "Salt from Saltville. Brine as it came from the well, settled with lime, say 4 quarts to 6000 gallons."
25. "Salt from Saltville. Brine as it came from the well."
109. "Salt water taken from a well sunk at Montezuma (N.Y.), in 1842, the depth of 605 feet. This water is fully saturated : one pint of it yields 2112 grains of chlorides of sodium, calcium and magnesium (See Municipal Gazette, Vol. i, p. 120)."
110. "Salt water from a well 400 feet deep, sunk at Lockpit, Wayne county (N.Y.), about five miles east of Clyde, and near the Canandaigua outlet (See Mun. Gazette, Vol. i, p. 140)."
111. "Salt water from a well sunk in 1846, near Little Sodus Bay (N.Y.) (See Mun. Gazette, Vol. 1, p. 587)."
112. "Salt water taken in 1844 from a salt spring in the wilderness in Perry township, near the River Trent, Upper Canada. This spring is about thirty miles north of Lake Ontario."
113. "Water taken from the Dead Sea by FISHER HOWE, esquire, of Brooklyn (L.I.), January 19, 1850. This water is a little discolored by the bottle in which it was brought."
114. "Water from the well of FINDLAY, MITCHELL & Co., Saltville, Washington county (Va.), January 31, 1844."
115. "Salt from the Great Salt Lake, Utah Territory, obtained by Capt. STANSBURY in 1849."

For particulars relating to the brines and salt mentioned in the list, reference may be made to the annual reports of the superintendents of salt springs of New-York for the years 1850, 1851, 1852 & 1853; also to Dr. LEWIS C. BECK'S Report on Mineralogy, one of the volumes of the Natural History of New-York.

It will be perceived, in these analyses, that there is no apparent relation between the amounts of sulphate of lime in the different specimens from the same brine. This, however, could not be otherwise; for the sulphate of lime deposits in a much more rapid ratio than the salt at the beginning of the salt-making process, and of course leaves the salt which forms last much the purest. The reverse of this takes place in the amounts of the chlorides of calcium and magnesium, as is strikingly apparent in the specimens from 15 to 20, where 15 is the one first formed from the brine, and 20 the last, and the amount of those chlorides regularly increases from the one to the other. The amount of water, and to some extent that of the earthy chlorides, found in the salt, varies with its age and more or less perfect drainage. In the tables, no mention is made of insoluble matter, dirt, etc. The salt made by artificial heat

contains scarcely any. In those made from sea-water by solar heat, sand and fragments of shells and corals are generally found, sometimes to an amount equal to one-half of one per cent : they are sometimes discolored, and a peculiar putrid odor is almost always to be observed in them.

The size, hardness, and density of the crystals of salt vary with circumstances connected with the manufacture, and appear to have no relation to the impurities which they may contain ; and the same remark is true of the properties which are popularly attributed to different kinds of salt : they must be owing to the size and density of the grains, and not to the presence or absence of impurities ; for an inspection of the above tables of analyses shows that some of the purest, and others the most impure, are equally reputable. This point has been maintained by others, and it is to be hoped that the specimens and facts here presented may aid in doing away the prejudices which are so common upon this subject.

The method of analysis pursued is nearly that of the late Dr. WILLIAM HENRY, as given in the Transactions of the Royal Society of London for the year 1809. In separating the earthy chlorides by alcohol, there is some uncertainty when sulphate of magnesia is present. There is room for a great deal of variation in the results of the analysis of common salt, from the impurities being so small in amount compared with the whole, as well as from the fact that specimens made in the same brine do vary in the amount of their impurities. In computing the several compounds in the salt from the bases and acids found, there is also some room for a difference of opinion, but I have done it to the best of my judgment.

My thanks are due to the gentlemen whose names are mentioned in the list of donors, and to Mr. G. WASHINGTON TAYLOR, who has aided me in verifying nearly all the results of my laboratory investigations.

GEORGE H. COOK.

RUTGERS COLLEGE, NEW-BRUNSWICK, N.J.

December 15, 1853.

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF THE HISTORY OF ARTS  
AND ARCHITECTURE

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Appendix.

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G.

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ON THE

SERPENTS OF NEW-YORK;

WITH A NOTICE OF A SPECIES NOT HITHERTO INCLUDED  
IN THE FAUNA OF THE STATE.

BY SPENCER F. BAIRD.



# ON THE SERPENTS OF NEW-YORK

WITH A NOTICE OF A SPECIES NOT HITHERTO INCLUDED IN THE  
FAUNA OF THE STATE.

BY SPENCER F. BAIRD.

WASHINGTON, D.-C.

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AT the suggestion of Dr. T. ROMEYN BECK, Secretary of the Board of Regents of the University of New-York, I embrace the occasion of adding a serpent, not hitherto included in the Fauna of New-York, to present the principal characters of the genera of New-York Ophidians, with a brief synopsis of the species. The entire number described by Dr. DEKAY, in the Fauna of New-York, amounted to fifteen, distributed into seven genera : to these Mr. GEBHARD, the able Curator of the State Cabinet, has added a sixteenth, *Crotalophorus tergeminus*. The species I now propose to notice is the *Storeria occipito-maculata*, one of the most abundant of all, though, on account of its diminutive size, usually overlooked ; thus making the seventeenth.

My attention was first called to the existence of this species in the State by Dr. AVERY J. SKILTON, of Troy, who, in 1847, showed me the first specimen I had ever seen. Subsequently I found it very common on Lake Champlain, at Westport, N.Y. Usually associated with the *Tropidonotus dekayi* of HOLBROOK (*Storeria dekayi*, B. & G.), it has a strong resemblance to it in general appearance as well as size, and indeed has often been confounded with it, though easily distinguishable by well-marked characters.

The particular features of this serpent will be given in the synopsis of the New-York species.

With the great increase in the number of known species of North-American serpents, it has become impossible to place all in the genera to which American herpetologists have hitherto assigned them. The magnificent work of Dr. HOLBROOK, completed in 1842, gives forty-seven species as the result of his laborious investigations, continued for many years, among our Ophidia. Owing, however, to the immense accessions supplied by the many government expeditions, especially by the United States and Mexican Boundary Survey, this number has been greatly enlarged; so much so, indeed, that at least one hundred and thirty species are known to exist in this country, north of Mexico. The necessity for greater precision in defining not only the specific, but also the generic features of this vast number, induced Mr. GIRARD and myself to take up the subject from the beginning, and remodel the whole. In the course of our investigations, we discovered that many genera, supposed to be common to Europe and America, had no such extended distribution; a critical comparison of different species from the two countries, considered as of the same genus, resulting in the detection of differences in generic features.

It may be proper to premise that the difficulties in the way of any accurate comparisons or investigations into this subject were greatly increased by the almost entire absence of systematic treatises on the Colubridæ, to which family most North-American species belong. The great work on Reptiles by MESSRS. DUMERIL and BIBRON (*Erpétologie Générale*) has been delayed completion for fourteen years, confessedly on account of the difficulty of coming to any correct conclusion in regard to the classification of the Ophidia. It is only within a few months that M. DUMERIL has presented his views of the arrangement of the serpents in a memoir read before the Academy of Sciences, Paris, no copy of which has yet reached this country. JOHN EDWARD GRAY, under whose auspices the valuable series of British Museum Catalogues has been prepared, has likewise omitted the Colubridæ. Other systematic writers, as FITZINGER, OPPEL, WAGLER, &c. have, it is true, given us something on this subject; but their arrangement has been

either too vague for practical use, or not adapted to the American species. We have had, therefore, no alternative but to recast the whole with the extensive material we had on hand.

The characters upon which the genera adopted are founded, as published in the work containing the results of these investigations\*, consist of the numbers, shape, and position of the various plates on the head; the smoothness or carination of the scales; the division or unity of the most posterior of the abdominal scutellæ, and of those beneath the tail, and some other peculiarities. Owing to the difficulty and expense of procuring skeletons of the genera, we found it impossible, at the time, to derive much assistance from osteological characters: subsequent examination of some forms, however, has indicated a very decided harmony between the internal and external characters. It is true that sometimes slight variations in the number and shape of the plates and rows of scales were detected, even in different sides of the same individual; but generally the constancy in character was so remarkable as to lead us to rely quite firmly on this mode of arrangement, and to consider the deviations as abnormal conditions, such as are met with in the most constant types. This view is strengthened by the fact that any variation was rarely symmetrical on both sides; one side only varying, as a general rule. Of less rank we found to be the number of longitudinal rows of scales on the back and sides. As, too, in nearly every instance, we found the pattern of coloration to be, with very few exceptions, much the same, in the various species of the same genus, as determined by the preceding features, we felt warranted in giving the pattern (not the tint) as a secondary, perhaps tertiary character, of great convenience in grouping species into genera, or their subdivision.

The number of genera into which the 119 species of N. American serpents described in the catalogue are divided is 35, or an average of nearly 3.4 to 1. The 47 species of Dr. HOLBROOK are divided

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\* Catalogue of North-American Reptiles in the Museum of the Smithsonian Institution. Part I. Serpents. By S. F. BAIRD and C. GIRARD. 8vo. pp. 188. Smithsonian Institution, Washington, January 1853.

among 15 genera, or 3.13 to 1. The 15 species described by Dr. DEKAY in the Natural History of the State are arranged in 7 genera, a proportion of 2.14 to 1; or, adding with the sixteenth species of Mr. GEBHARD, an additional genus, we have 2 to 1. It will thus be seen, that instead of a multiplication of genera in our work, their proportional number has actually been diminished.

The 17 species of New-York Ophidia, as now given, belong to 14 of the genera of the Smithsonian Catalogue, or a proportion of 1.21 to 1; thus embracing two-fifths of the genera described, although the number of species is only one-seventh of those enumerated as North-American. It is a matter of much interest to find so large a proportion of American genera included within the limits of the State. The generic features will thus become of use in the speedy discrimination of species, as but three of the genera have more than one species to each.

To facilitate the appreciation of the generic character of the synopsis, as well as to aid in the determination of species, I have added to the present article two plates containing a view from above and on the side of each one of the seventeen species. All these outlines are entirely original, and in nearly all cases taken from New-York specimens. No. 9, or *Scotophis alleghaniensis*, I have lettered, so as to correspond with the following explanation of terms. All are the size of life, but the numbers 14, 15, 16, 17, which are twice natural size.

## [EXPLANATION OF TERMS USED.

THE *vertical* plate (*v*) is the central one in the middle of the head above, having on each side of it the *superciliaries* (*s,s*), which form the upper part of the orbit. The two plates behind the vertical are the *occipitals* (*o,o*); the pair in front of it, the *postfrontals* (*p,f*). The *prefrontals* or *anterior frontals* (*a,f*) are situated in front of the postfrontals; and anterior to these, and terminating the snout, is the *rostral* (*r*). The plates immediately in front of the eye are the *anteorbitals* (*a*): those behind it are the *postorbitals* (*p,o*). In advance of the anteorbital is the *loral* (*lo*); between which and the rostral are the two *nasals* (*n*), with the nostril between them. The *upper* and *lower labials* (*l,l*) margin the upper and lower jaws: only one of each series is marked. The *temporal* shields (*t*) are situated between the upper labials and the occipitals. The *infra-maxillary* or *mental* scutellæ or shields are just within the lower labials: these cannot be shown in the figure.

The arrangement on the top of the head of one rostral, two pairs of frontals, one vertical with one superciliary on each side, and one pair of occipitals we have considered as typical or normal, from which but few of the genera described vary. Sometimes one plate occupies the place of the two prefrontals; and in some genera a second median plate is seen between the rostral, frontals and vertical. On the side of the head we have sometimes but one nasal, and sometimes either the loral or the anteorbitals may be wanting. Where the latter condition exists, it is sometimes difficult to determine which plate has disappeared. A clue is to be found in the shape of the remaining plate: if this be longitudinal, it is probably the loral; if vertical, or divided into two or more, one above the other, it is to be considered as anteorbital. The loral belongs to the postfrontals, and the anteorbital to the vertical, the posterior edges in the former and the anterior in the latter generally ranging. Thus when the vertical plate is very short, the anteorbital is also short or wanting entirely; and the same relation holds good between the loral and postfrontals.

Of the five numbers given at the end of the descriptions, the first indicates the number of the abdominal scutellæ from chin to anus; the second is that of the pairs of subcaudal scutellæ; the third, the dorsal rows, or the number of rows of scales around the body (excluding the abdominal series): the fourth number shows the entire length of the animal; and the fifth, the length of the tail in english inches.

In referring to the dorsal rows, the exterior one, or that next the scutellæ, is considered to be the first, unless the contrary is stated.

When there are two numbers separated by the symbol (+) at the beginning of the measurements, the first indicates the number of entire abdominal scutellæ; the latter, of those that are bifid or divided. The subcaudal scutellæ are to be considered as divided or in pairs, unless mentioned to the contrary.

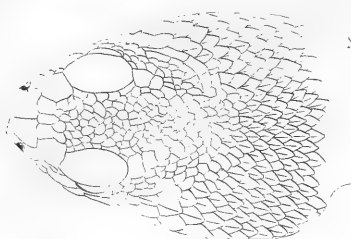
In enumerating the number of labial plates, those on one side of the jaws only are to be understood, and the terminal and median one on the symphysis of the upper and lower maxillaries is never included. On the upper jaw, that plate is at the end of the snout, and is the rostral.

The descriptions are all based on specimens preserved in alcohol, unless otherwise stated.

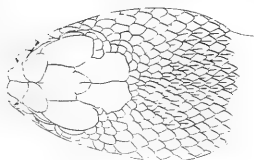
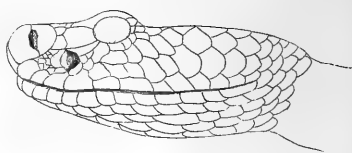
- v. Vertical ;
- s. Superciliary ;
- o. Occipital ;
- p,f. Postfrontal ;
- a,f. Anterior, or Prefrontal ;
- r. Rostral ;
- a. Anteorbital ;
- p,o. Postorbital ;
- n. Nasal ;
- lo. Loral ;
- l. Upper labial ;
- l''. Lower labial ;
- t. Temporal ;
- m. Mental.



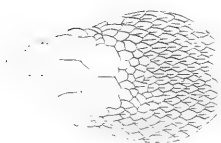
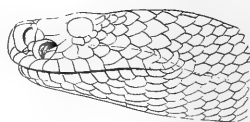




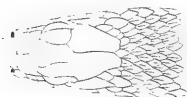
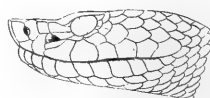
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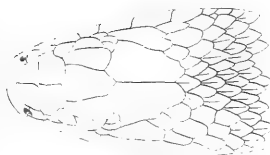
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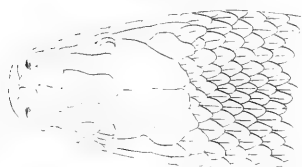
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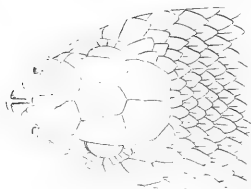
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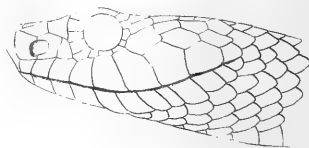
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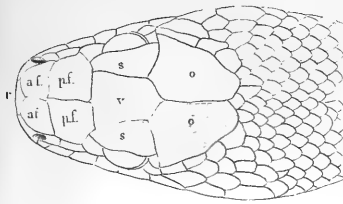


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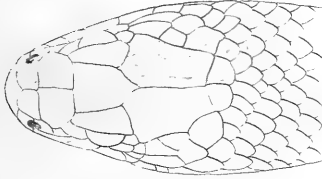
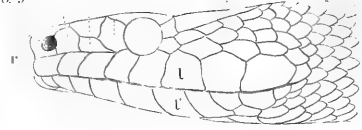
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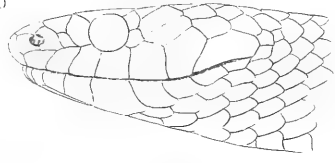


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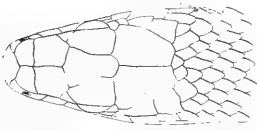
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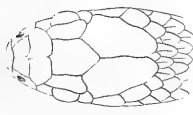
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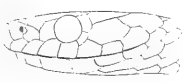
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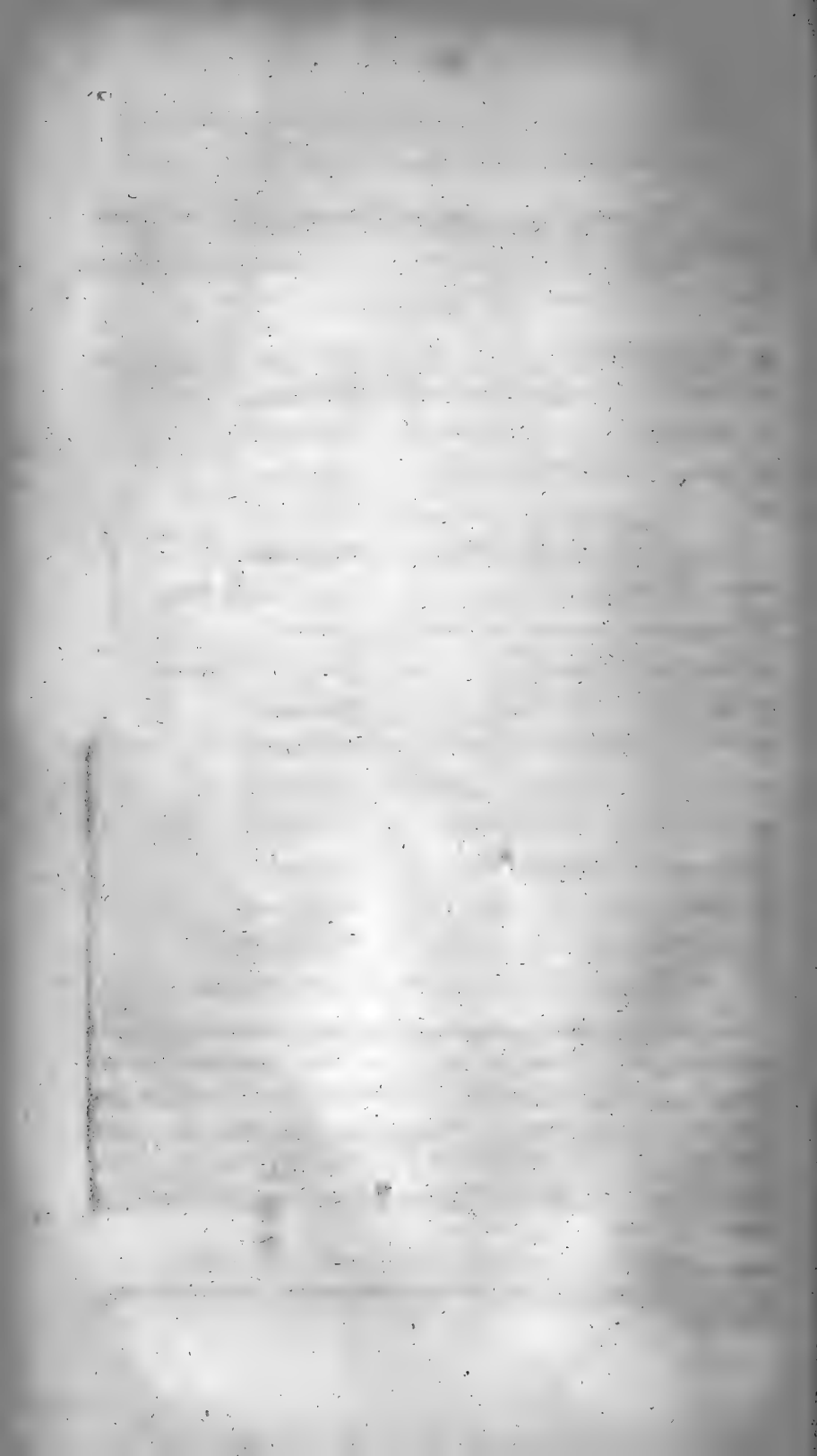


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No. 17  
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The seventeen species of Ophidia hitherto known to inhabit New-York are as follows\* :

LIST OF SPECIES.

1. CROTALUS DURISSUS, *Linnaeus*. . . . . Rattlesnake.
2. CROTALOPHORUS TERGEMINUS, *Holbrooke*. Massasauga.
3. ANCISTRODON CONTORTRIX, *B. & G.* . . . . . Copperhead.
4. EUTÆNIA SAURITA, *B. & G.* . . . . . Striped-snake.
5. " SIRTALIS, *B. & G.* . . . . . Gartersnake.
6. NERODIA SIPEDON, *B. & G.* . . . . . Watersnake.
7. REGINA LEBERIS, *B. & G.* . . . . . Yellowbellied-snake.
8. HETERODON PLATYRHINOS, *Latr.* . . . . . Hognose.
9. SCOTOPHIS ALLEGHANIENSIS, *B. & G.* . . . . . Mountain Blacksnake.
10. OPHIBOLUS GETULUS, *B. & G.* . . . . . Kingsnake.
11. " EXIMIUS, *B. & G.* . . . . . Housesnake.
12. BASCANION CONSTRICTOR, *B. & G.* . . . . . Blacksnake.
13. CHLOROSOMA VERNALIS, *B. & G.* . . . . . Greensnake.
14. DIADOPHIS PUNCTATUS, *B. & G.* . . . . . Ringsnake.
15. CELUTA AMENA, *B. & G.* . . . . . Wormsnake.
16. STORERIA DEKAYI, *B. & G.* . . . . . Spotted-snake.
17. " OCCIPITO-MACULATA, *B.* . . . . . Redbellied-snake.

In addition to these, some seven or more species will, in all probability, be hereafter detected in the State : these are, *Crotalophorus massasauga*, KIRTLAND (*C. kirtlandii*, HOLBROOK), in the west ; *Nerodia agassizii* and *Scotophis vulpinus*, from the northwest ; *Nerodia nigra*, from the north ; *Heterodon niger* and *Regina rigida*, from the south, and *Pityophis melanoleucus* from the southeast.

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\* The numbers attached to the species are the same as on the corresponding figures of the plates.

The following analytical table will be found to contain, in a condensed form, a key to the subsequent classification of genera.

SYNOPSIS OF FAMILIES AND GENERA.

Family I : CROTALIDÆ. Erectible poison fangs, in front ; few teeth in upper jaw ; a deep pit on side of face, between the eye and nostril.

Family II : COLUBRIDÆ. No pit nor poison fangs ; both jaws fully provided with teeth ; no anal appendages.

FAMILY I : CROTALIDÆ.

Tail with a rattle.	{ with small sca'e-like plates.. CROTALUS. with large plates arranged as in <i>Coluber</i> .....CROTALOPHORUS.
Top of head covered...	
Tail without a rattle.....	ANCISTRODON.

FAMILY II : COLUBRIDÆ.

ANTEORBITALS and LORALS both present.	Scales carinated. Postorbitals	Three. Postabdominal scutellæ	{ entire..... EUTENIA. { divided..... NERODIA.
		Two. Anteorbitals.....	{ two..... REGINA. { one..... SCOTOPHIS.
		Numerous. Labials not in orbit.....	HETERODON.
		Scales smooth. Postab. scutella	{ entire..... OPHIBOLUS. { Divided. { Long, narrow. Lower anteorbital minute. BASCANION. { Vertical plate { Broad, short. Nasal.. { one..... CHLOROSOMA. { two..... DIADOPHIS.
ANTEORBITALS absent.	Scales smooth.....	CELUTA.	
LORAL absent.	Scales carinated.....	STORERIA.	

I shall now proceed to give a brief description of the genera and species of serpents inhabiting New-York, with some general remarks upon each.

SYNOPSIS OF GENERA AND SPECIES  
OF  
NEW-YORK SERPENTS.

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GENUS CROTALUS, LINN.

GEN. CHAR. Upper surface of head covered with small plates, scale-like, with a few larger ones in front. The tail is terminated by a well developed rattle. A deep pit between the eyes and the nostrils. Subcaudal scutellæ entire. Temporal and labial shields small and convex.

1. CROTALUS DURISSUS\*, L.—Rattlesnake.

SPEC. CHAR. Head angular. Scales between the supercillaries small, numerous, uniform. Plates above snout, 2 anterior frontal, and 5 postfrontal. Suborbital chain continuous, of large scales: two rows between this and labials. Labials 12 - 14 above, fifth largest; 13 - 15 below. Rows of scales on the back 23 - 25, all carinated: carination on outer row obsolete. Tail black. Above sulphur-brown, with 2 rows of confluent brown lozenges. Light line from superciliary to angle of the mouth: behind this a dark patch. 166, 25, 23, 42, 5 (Pennsylvania).

SYNONYMS.

*Crotalus durissus*, LINN. Syst. Nat. I. 1766, 372.—GM. *Linn.* Syst. Nat. ed. xiii. I. iii. 1788, 1081.—HOLBR. N. Amer. Herp. III. 1842, 9. Pl. i.—DEKAY, N. Y. Fauna, Pt. III. 1842, 55. Pl. ix. fig. 19.—STORER, Rep. Rept. of Mass. 1839, 233.—BAIRD & GIRARD, Catal. N. Am. Serpents, 1853, 1.  
*Vipera caudisona americana*, CATESB. Nat. Hist. Carol. II. 1743, 41. Pl. lxi.  
Northern Rattlesnake.

The *Crotalus durissus*, or northern rattlesnake, is more extensively distributed throughout the United States than any other of the genus. It is

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\* The numbers preceding the specific name are the same with the corresponding figures on the plates.

common in the hilly or rocky districts of the Northern Atlantic States: extending to Florida, Alabama and Louisiana in the south; the Red river of Arkansas, and Iowa (possibly further) in the west. On the seacoast, it appears to be replaced by *Crotalus adamanteus*. It has, however, not yet been detected in Texas, New-Mexico or California, where its place is supplied by other species. In New-York, it seems to be most abundant on the shores of Lake George and Lake Champlain; especially in Rattlesnake mountain of the former, and Rattlesnake den of the latter, a rocky bluff between Westport and Essex. It is a little remarkable that the rattlesnake does not occur in the Adirondack regions of New-York; at least, an instance has never come to my knowledge. Such a region in Pennsylvania would be infested by them.

The bite of the rattlesnake, when received in a large bloodvessel, is most generally fatal; although, fortunately, the chances are against this point of attack. Various remedies have been proposed: among them, the application of tight ligatures between the wound and the centres of the body; scarification and suction; application of ammonia, olive oil, and the use of large doses of brandy or other spirituous liquor. All of these may be properly used, and it is a singular fact that a very large dose of spirits generally fails to produce intoxication. Many plants are supposed to possess remedial virtues; thus, a plaster of bruised leaves and stems of *Impatiens pallida* or *fulva* has a wide-spread reputation both among indians and whites. Species of plantain, *Scrophularia*, *Scutellaria*, *Hieracium*, etc., are also recommended. Little or no danger is to be apprehended to the operator in sucking a wound of this kind, if the mouth be sound; repeated experiment going to show that the poison is inert in the stomach. I have myself (rather foolishly, I must confess) swallowed nearly the entire contents of one gland of a large rattlesnake. Many persons put great faith in the application of powdered indigo to the wound, as also of iodine.

#### GENUS CROTALOPHORUS, GRAY.

GEN. CHAR. Upper surface of the head covered with nine large plates, as seen in *Coluber* and allied genera. The tail terminates in a rattle, generally smaller than in *Crotalus*. A deep pit between the eye and nostril, as in *Crotalus*. Subcaudal scutellæ entire, except a few at the end of the tail, which are bifid.



SYN. *Crotalophorus*, GRAY, Ann. Philos. 1825, 205.—B. & G. Catal. of North-American Serpents, 1853, 1.

2. CROTALOPHORUS TERGEMINUS, Holbr.—Massasauga.

SPEC. CHAR.—Twenty-five rows of dorsal scales, strongly carinated, with the exception of the first row, which is perfectly smooth. Vertical plate subhexagonal, pointed posteriorly. Seven longitudinal series of blotches. A narrow band of yellowish white extends from the pit to the neck, in passing close to the angle of the mouth. 150, 21+1, 25, 29½, 2¾ (Wisconsin).

SYNONYMS.

*Crotalus tergeminus*, SAY, Long's Exp. Rocky Mts. I. 1823, 499.—HARL. Journ. Acad. Nat. Sc. Philad. V. iii. 1827, 372.

*Crotalophorus tergeminus*, HOLBR. N. Amer. Herp. III. 1842, 29. Pl. v.—B. & G. Catal. N. Am. Serp. (1853), 1—GEBH. 6th Rep. State Cab. Nat. Hist. 1853, 22.

*Crotalophorus*, AGASS. Lake Sup. 1850, 381. Pl. vi. fig. 6-8.  
Prairie Rattlesnake, Massasauga.

As this species is not included in DEKAY'S Fauna of New-York, I give a detailed description, taken from a specimen caught in Wisconsin; referring to the Report of the State Cabinet as above quoted, for the description of the New-York specimen.

The ground color above is brown: the blotches are deep chestnut-brown, blackish externally, and with a yellowish white margin. The dorsal blotches are thirty-four in number from the head to the region opposite the anus, twenty-six of which are transversely and irregularly oblong, anteriorly and posteriorly emarginated; less so, however, posteriorly: eight are subcircular. Five or six exist on the tail from the anus to its tip, extending on the sides, the last two forming sometimes a complete ring. The next series on either side is composed of small blotches, but as intensely colored as in the other series: they alternate with the dorsal ones: they have no regularity either in outline or position. The second lateral row is composed of the largest lateral blotches: they are transversely oblong or oval on the second, third, fourth, fifth, and sixth rows of scales, and opposite the blotches of the dorsal series; consequently alternating with the third series above. The first lateral series again is composed of blotches intermediate in size between those of the third and second series: they occupy the first and second rows of scales, and extend somewhat to the abdominal scutellæ, and alternating with the adjoining series. Two undulated vittæ extend from the supraorbital plates along the neck to the first dorsal blotch, and often confluent with the latter. A linear vitta, margined with yellowish white, extends from the posterior edge

of the eye to the sides of the neck : the inferior yellow margin is the broadest, and passes from the pit close to the angle of the mouth, turning forward to the middle of the lower jaw, enclosing a semi-elliptical brown patch. Two elongated yellowish spots may be observed, diverging from both sides of the pit to the lip. The cephalic plates are deep chestnut-brown : a transverse light brown band extends across the head from one orbit to the other.

Beneath blackish brown, mixed with yellow.

This species of rattlesnake has recently been added to the fauna of New-York, in a communication by Mr. JOHN GEBHARD, the able Curator of the State Cabinet, in the Sixth Report of the State Cabinet, as follows :

“ The specimen in the State Cabinet was presented by the Hon. LEVI FISK of the town of Byron, Genesee county, N.Y. Their habitat is a white-cedar swamp in said town, containing an area of about one thousand acres. During the summer season they leave the swamp, and go into the adjoining fields of grain, where they remain till autumn, when they return to the swamp and hibernate. They have not been observed at any other locality in this State. The entire length of the specimen is two feet : it has 139 abdominal plates, and 23 entire and 3 bifid under the tail, upon which there are only three rattles remaining. Mr. FISK states that one was killed last summer, that had fourteen rattles, and was a little over two feet in length ; which may be considered as the maximum size of the species ” ( p. 22 ).

*Crotalophorus tergeminus* appears to be quite a northern species ; occurring also in Northern Ohio, Illinois, Wisconsin, Michigan, Minnesota, and on the plains probably to the base of the Rocky Mountains. In the south it is replaced by *C. miliarius* ; and in Texas and Mexico, by the closely allied *C. consors* and *edwardsii*. On the plains it is a frequent associate of the burrowing owl (*Athene hypogæa*) in the holes of the prairie dog, although other species of rattlesnakes have the same habit.

Its powers of injury are considerably less than those of the *Crotalus durissus*, being rarely sufficient to produce death in large animals. It is generally found in dry ridges of the prairies ; being distinguished in this from the black massasauga, or *Crotalophorus massasauga*, KIRTLAND (*C. kirtlandii*, HOLB.), which usually inhabits the swampy grounds of Northern Ohio. This latter species may be looked for, at some time or other, in the western part of the State.

## GENUS ANCISTRODON, BEAUV.

GEN. CHAR. A deep pit between nostril and the eye. Nine plates on top of head. Without rattle. Poison fangs as in *Crotalus*. One pair of occipitals. A loreal between the nasal and anterior orbitals. Labials excluded from the orbit by the presence of suborbital plates. Scales carinated : rows 23 in number. Subcaudal scutellæ divided posteriorly. Sometimes a small plate between the vertical and postfrontals. Habits terrestrial.

SYN. *Agkistrodon*, PAL. DE BEAUV. Trans. Amer. Phil. Soc. Philad. 1799, 381.

## 3. ANCISTRODON CONTORTRIX, B. &amp; G.—Copperhead.

SPEC. CHAR. Loreal present. Labials not entering into the orbit. Dorsal rows of scales 23. Color light chestnut, with inverted Y-shaped darker blotches on the sides. Labials yellowish white. 150, 40+10, 23, 27 $\frac{2}{3}$ , 3 $\frac{5}{8}$  (Ohio).

## SYNONYMS.

*Boa contortrix*, LINN. Syst. Nat. I. 273.—GM. L. Syst. Nat. ed. xiii. I. iii. 1788, 1082.

*Agkistrodon mokason*, BEAUV. Trans. Am. Phil. Soc. Philad. IV. 1799, 380.

*Scytalus cupreus*, RAFIN. Amer. Journ. Sci. I. 85.—HARL. Med. and Phys. Res. 1835, 130.

*Trigonocephalus cenchris*, SCHL. Ess. Phys. Serp. Part descr. 1837, 553. Pl. xx. fig. 10 and 11.

*Trigonocephalus contortrix*, HOLBR. N. Amer. Herp. II. 1838, 69, pl. xiv.; and 2d ed. III. 1842, 39, pl. viii.—DEKAY, N.Y. Fauna, III. 1842, 53, pl. ix. f. 18.

*Agkistrodon contortrix*, B. & G. Catal. N. Am. Serpents (1853), 17.

The copperhead snake is a vicious species, and its bite is equally to be dreaded with that of the large rattlesnakes. The remedies for its bite are the same. It rarely, however, attains the dimensions of the *Crotalus durissus*, the largest specimen we have ever seen not exceeding three feet. Fortunately it is at the present day comparatively rare throughout the United States; being, indeed, almost entirely exterminated in many localities where once abundant. Its range is much the same as that of the northern rattlesnake, and it is even found in Central Texas, where I have never known the *Crotalus durissus* to occur. It is abundant in Missouri and Louisiana. Like the rattlesnakes, and some other genera, the copperhead is ovo-viviparous.

## GENUS EUTÆNIA, BAIRD &amp; GIRARD.

GEN. CHAR. Body moderately stout in some species, slenderer in others. Scales carinated. Skin very extensible. Cephalic plates normal. Anterior orbitals 1; posterior, 3. Abdominal scutellæ all entire; subcaudal, divided. Dorsal rows of scales 19–21. Abdominal scutellæ 140–170; subcaudal, 50–120. General color, three light stripes on a darker ground: intervals with alternating or tessellated spots. Abdomen without square blotches. Mostly terrestrial. Many of the species are ovoviviparous.

SYN. *Eutainia*, B. & G. Catal. N. Am. Serpents (1853), 24.

## 4. EUTÆNIA SAURITA, B. &amp; G.—Ribbonsnake.

SPEC. CHAR. Body very slender, elongated. Tail very long. Lateral stripe on the third and fourth rows of scales: dorsal rows 19. Color above, light chocolate: three stripes of uniform yellow; below the lateral stripes, light brown. Abdomen greenish white. On an average, the length of the tail is more than one-third the total length. 156, 115, 19, 35, 12 $\frac{1}{4}$  (Pennsylvania).

## SYNONYMS.

- Coluber saurita*, LINN. Syst. Nat. I. 1766, 385.—GM. L. Syst. Nat. ed. xiii. I. iii. 1788, 1109.—HARL. Journ. Acad. Nat. Sc. Philad. V. 1825, 352.—STORER, Rep. Rept. Mass. 1839, 229.—THOMPS. Hist. of Verm. 1842, 115.  
*Leptophis sauritus*, HOLBR. N. Amer. Herp. III. 1842, 21, pl. iv.—DEKAY, N.Y. Fauna, 1842, 47, pl. xi, fig. 24.  
*Eutainia saurita*, B. & G. Catal. N. Am. Serpents (1853), 24.

This slender and graceful serpent, as far as I know, is confined pretty much to that portion of the United States east of the Mississippi, being indeed most abundant in the region of the Allegheny mountains. In the far west it is replaced by *E. proxima*, and other allied species. It is generally found near the edge of woods, and not unfrequently in or about the water, in which it seems perfectly at home. It is unnecessary, perhaps, to say of this species, what is perfectly true of all the New-York species except the rattlesnakes and copperhead, that it is entirely harmless; its bite, if it should inflict one, being similar in its effects to the scratch or puncture of a pin.

## 5. EUTÆNIA SIRTALIS, B. &amp; G.—Striped-snake. Gartersnake.

**SPEC. CHAR.** Body stout. Lateral stripe on the second and third lateral rows of scales. Olivaceous brown above the lateral stripes, sometimes nearly black : beneath these, greenish white. Dorsal stripe narrow, encroached upon by the spots. Lateral stripes not conspicuous. Two or three rows of small indistinct spots, often not perceptible, especially the lower : about 70 from head to anus. 151, 80, 19, 21,  $5\frac{1}{4}$  (New-York).

**SYNONYMS.**

*Coluber sirtalis*, LINN. Syst. Nat. I. 1766, 383.—GM. *L.* Syst. Nat. ed. xiii. I. iii. 1788, 1107.—HARL. Journ. Acad. Nat. Sc. Philad. V. 1827, 352.—STOREE, Rep. Rept. Mass. 1839, 221.

*Tropidonotus bipunctatus*, SCHL. Ess. Physiogn. Serp. Part. descr. 1827, 320.

*Tropidonotus sirtalis*, HOLBR. N. Amer. Herp. III. 1842, 41, pl. xi.

*Tropidonotus tania*, DEKAY, N. York Fauna, Rept. 1842, 43, pl. xiii. fig. 27.

*Eutainia sirtalis*, B. & G. Catal. N. Am. Serpents (1853), 30.

The well known gartersnake is perhaps more abundant in New-York than any other species. Its distribution is very extensive, embracing the whole of the United States east of the Mississippi. It is especially common in the Adirondack region, where other species, except those of *Storeria*, seldom occur. It is generally found near the water.

The gartersnake is ovo-viviparous, and gives birth to an almost incredible number of young. Some years ago I killed a gravid female, on the Allegheny river, at Foxburg (Pa.), from which I took eighty-three young ones, six inches in length each.

## GENUS NERODIA, BAIRD &amp; GIRARD.

GEN. CHAR. Body generally stout, and almost all the species attaining a large size. Tail one-fifth or one-fourth of the total length. Scales carinated. Cephalic plates normal. Anterior orbitals generally 1, occasionally 2; posterior 3, occasionally 2. Last and sometimes penultimate abdominal scutellæ bifid; subcaudal, all bifid or divided. Dorsal rows of scales 23 - 29. Abdominal scutellæ 133 - 154; subcaudal, 66 - 80. General color, three series of dark blotches on a lighter ground, sometimes almost uniform brown or blackish. Abdomen unicolor or maculated. Habits aquatic.

SYN. *Nerodia*, B. & G. l. c. (1853), 38.

## 6. NERODIA SIPEDON, B. &amp; G.—Watersnake.

SPEC. CHAR. Head rather narrow, elongated. One anteorbital; three postorbitals. Vertical plate smaller, and occipitals larger than in *N. fasciata*. Length of vertical equal to commissural line of occipitals. Inframaxillary plates extending near to posterior extremity of seventh lower labials. Dull brown, with narrow transverse light bands margined with black. Dorsal rows 23. 142+1, 68, 23, 35, 8½ (Penn.).

## SYNONYMS.

*Coluber sipedon*, LINN. Syst. Nat. I. 1766, 379.—GM. L. Syst. Nat. ed. xiii. I. iii. 1788, 1098.—HARL. Journ. Acad. Nat. Sc. Philad. V. 1827, 351.—THOMPS. Hist. of Verm. 1842, 118.

*Coluber pæcilogaster*, MAX. WIED. Reise Inn. Nord. Amer. I. 1839, 106.

*Tropidonotus sipedon*, HOLBR. N. Amer. Herp. III. 1842, 29, pl. vi.—DEKAY, N. York Fauna, III. 1842, 42, pl. xiv. f. 31.

*Nerodia sipedon*, B. & G. l. c. (1853), 38.

The watersnake is an abundant species, although, from living along the edge of the water, and plunging in on the slightest alarm, it is not often captured. It may sometimes be seen in large numbers, coiled together in some bush overhanging a stream or pond.

This species has not a very extended range, being replaced in the Southern States by the *N. fasciata*, and in the far west by other species. It is, however, abundant from Massachusetts to Wisconsin, and as far south as Virginia and Ohio.

## GENUS REGINA, BAIRD &amp; GIRARD.

**GEN. CHAR.** Body slender. Tail subconical, very much tapering, forming one-third or one-fourth of the total length. Head conical, continuous with the body, and proportionally small. Eyes large. Mouth deeply cleft. Labials small. Loral and nasals large. Scales carinated. Cephalic plates normal. Anterior orbitals 2, occasionally 1; posterior 2, occasionally 3. Last, and sometimes last but one abdominal scutellæ bifid or divided. Subcaudal scutellæ all divided. Dorsal rows of scales 19 - 21. Abdominal scutellæ 132 - 162; subcaudal, 52 - 86. General color, five or more longitudinal dark bands on a lighter ground. Abdomen unicolor, or likewise provided with similar bands. Aquatic.

**SYN.** *Regina*, B. & G. l. c. (1853), 45.

## 7. REGINA LEBERIS, B. &amp; G.—Yellowbellied-snake.

**SPEC. CHAR.** Chestnut-brown, with a lateral yellow band, and three narrow black dorsal vittæ. Abdomen yellowish, with four brown bands, two of which are lateral and two medial. Dorsal rows of scales 19, all carinated. 144+2, 81, 19, 23½, 6½ (Penn.).

## SYNONYMS.

*Coluber leberis*, LINN. Syst. Nat. ed. x. I. 1766, 216.—GM. L. Syst. Nat. ed. xiii. I. iii. 1788, 1086.—SHAW, Gen. Zool. III. iii. 1802, 433.

*Coluber septemvittatus*, SAY, Journ. Acad. Nat. Sc. Philad. IV. 1825, 240.—HARR. Journ. Acad. Nat. Sc. Philad. V. 1827, 355; and Med. & Phys. Res. 1835, 118.

*Tropidonotus leberis*, HOLBR. N. Amer. Herp. IV. 1842, 49, pl. xiii.—DEKAY, N. York Fauna, Rept. 1842, 45, pl. xi. f. 23.

*Regina leberis*, B. & G. l. c. (1853), 45.

This species is quite as aquatic in its habits as the *Nerodia sipedon*. It is generally found along the banks of shallow brooks, especially where the sides and bed are covered by loose stones. It frequently occurs coiled up under broad flat stones in shallow streams. Its range extends from New-York to Wisconsin, and it is abundant in many parts of Pennsylvania and Ohio, particularly in the mountains, although it has not yet been detected further south.

## GENUS HETERODON, PAL. DE BEAUV.

GEN. CHAR. Body short, stout : tail short. Head, neck, and body capable of excessive dilatation. Posterior palatine teeth longer. Head broad, short. Outline of mouth very convex, on a single curve. Orbit enclosed by a continuous chain of small plates ; the circle completed above by the superciliaries. Rostral prominent : its anterior face very broad, and turned up ; its ridge above sharp. Behind it a median plate, either in contact with the frontals or separated by small plates. Frontals in two pairs : nasals two ; loreal one or two. Dorsal rows of scales 23 - 27, carinated. Abdominal scutellæ 125 - 150 ; posterior bifid. Subcaudal scutellæ all bifid.

Colors light, with dorsal and lateral darker blotches ; or else brown, with dorsal transverse light bars : sometimes entirely black.

SYN. *Heterodon*, PAL. DE BEAUV. in LATR. Hist. Nat. des Rept. IV. 1799.

## 8. HETERODON PLATYRHINOS, Latr.—Blowing Viper.

SPEC. CHAR. Occipitals and verticals longer than broad, about equal in length. Centre of eye anterior. Dorsal rows 25, all carinated ; the outer sometimes smooth. Keels of the scales extending to their tips. Scales on the back quite linear anteriorly ; posteriorly they are much broader. Color yellowish gray or brown, with about 28 dark dorsal blotches from head to anus, and 15 half-rings on the tail. One or two lateral rows. Beneath yellowish. A dark band across the forehead in front of the vertical, continued through the eye to the angle of the mouth. 129+1, 53, 25, 28, 6 (Penn.).

## SYNONYMS.

*Cotuber heterodon*, DAUD. Hist. Nat. Rept. VII. 1799, 153, pl. lx. f. 28.—SAY, Amer. Journ. of Sc. I. 1818, 261.—HARR. Journ. Acad. Nat. Sc. Philad. V. 1827, 357 ; and Med. & Phys. Res. 1835, 120.

*Heterodon platyrhinus*, LATR. Hist. Nat. Rept. IV. 1799, 32, f. 1 - 3.—HOLBR. N. Amer. Herp. II. 1828, 97, pl. xxi. ; and 2d ed. IV. 1842, 67, pl. xvii.—DEKAY, N.Y. Fauna, III. 1842, 51, pl. xiii. f. 28.—B. & G. l. c. (1853), 51.

This curiously formed snake, known as Hognose, Blowing Viper, Spreading and Checkered Adder, etc., although supposed to be venomous, is perfectly



harmless and exceedingly inoffensive, notwithstanding its threatening appearance when flattening the head and body, and emitting a succession of hisses, similar, on a very small scale, to an engine letting off steam. To those familiar with the habits of this species in making these sibilant sounds, the question mooted in the papers, some years since, appeared supremely ridiculous, in view of the grave assertions to the contrary by some of the disputants.

It is found throughout the United States, though scarcely extending far beyond the Missouri river.

### GENUS SCOTOPHIS, BAIRD & GIRARD.

**GEN. CHAR.** Form colubrine. Body cylindrical, very long; many individuals attaining a very large size, perhaps the largest of all North-American serpents. Head elongated, rather narrow. Vertical plate very broad, sometimes wider than long. Posterior frontals very large. Post-orbitals 2 : anteorbitals 1, generally very large; the longitudinal extension of this, and of the postfrontals, producing a much elongated muzzle. Mouth deeply cleft; outline nearly straight. Dorsal rows of scales 23 - 29 : those along the back slightly carinated (9 - 15 rows); on the sides, smooth. Abdominal scutellæ from 200 to 235; posterior bifid : subcaudals all bifid.

Color brown or black, in quadrate blotches on the back and on the sides, separated by lighter intervals. Abdomen usually coarsely blotched with darker. In one species, dark stripes on a light ground. Although very large and powerful, many of the species of the genus are characterized by their extreme gentleness, rarely become enraged even when provoked.

**SYN.** *Scotophis*, B. & G. l. c. (1853), 73.

#### 9. SCOTOPHIS ALLEGHANIENSIS, B. & G.— Mountain Blacksnake.

**SPEC. CHAR.** Vertical plate longer than broad. Posterior upper labial largest. Outér 7 rows of scales smooth : dorsal rows 27. Abdominal scutellæ 235. Color black; below, mottled anteriorly with white. White edges to some scales, imparting an appearance of dorsal and lateral blotches, especially in the young. 234+1, 86, 27, 59½, 10¾ (Penn.).

## SYNONYMS.

*Coluber alleghaniensis*, HOLBR. N. Amer. Herp. I. 1836, 111, pl. xx.; and 2d ed. III. 1842, 85, pl. xix.—DEKAY, N.Y. Fauna, Rept. 1842, 36, pl. xii. f. 26.  
*Scotophis alleghaniensis*, B. & G. I. c. (1853), 73.

This species, usually confounded with the common blacksnake, may be readily distinguished by the carination of the central dorsal rows of scales, as well as by the exhibition of the white edges of the scales when these are separated. It attains a very large size; greater, perhaps, than any others in this country, except *Georgia couperi*, and the species of *Pityophis*. It is much more sluggish than the true blacksnake, and not at all belligerent when provoked. It probably ascends trees in pursuit of food, as I have killed one with a brood of five young jaybirds in its stomach.

It is by no means a common species, although its range is quite extensive.

## GENUS OPHIBOLUS, BAIRD &amp; GIRARD.

GEN. CHAR. Body rather thick: tail short. Dorsal rows 21 (in one group 23); the scales hexagonal, arranged in longitudinal series, broad, short, scarcely overlapping, nearly as high as long, all perfectly smooth and lustrous. Abdominal scutellæ 180 - 220; posterior entire: subcaudal all bifid. Head, short, depressed, but little wider than the body. Eyes very small. Vertical plate very broad. Postorbitals 2; the lower in notch between the fourth and fifth labials. One anteorbital, like the loral, small. Nasals 2, with the nostril between them. Upper labials 7. Ground-color black, brown or red, crossed by lighter intervals generally bordered with black.

SYN. *Ophibolus*, B. & G. I. c. (1853), 82.

## 10. OPHIBOLUS GETULUS, B. &amp; G.—Chainsnake.

SPEC. CHAR. Black, crossed by about thirty narrow continuous yellow lines, which bifurcate on the flanks; the very obtuse angles embracing on each side a series of very much elongated patches, and, in fact, by the union of the branches with each other, dividing the back into a succession of large black hexagons. 224, 48, 21,  $30\frac{1}{2}$ ,  $4\frac{1}{2}$  (S. Car.).

## SYNONYMS.

- Coluber getulus*, LINN. Syst. Nat. I. 1766, 382.—GM. L. Syst. Nat. ed. xiii. I. iii. 1788, 1106.—HARL. Journ. Acad. Nat. Sc. Philad. V. 1827, 358; and Med. & Phys. Res. 1835, 122.—PEALE, Cont. Macl. Lyc. I. 1829, pl. v.—DEKAY, N. York Fauna, III. 1842, pl. x. f. 21.
- Pseudoelaps getulus*, FITZ. N. Class. Rept. 1826, 56.
- Coronella getula*, HOLBR. N. Amer. Herp. III. 1842, 95, pl. xxi.
- Anguis annulatus*, CATESB. Nat. Hist. Carol. II. 1743, 52, tab. lii.
- Ophibolus getulus*, B. & G. 1. c. 1853, 85.

The chainsnake is quite maritime in its northern distribution, being rarely found in the Northern States except near the coast. It is occasionally seen in Long Island, according to Dr. DEKAY, and more frequently in Eastern New-Jersey. It is quite abundant in the Southern States. I have no evidence of its occurrence west of the Mississippi on the southern coast.

This species is sometimes called Kingsnake; and is said to wage a deadly warfare against the different species of rattlesnakes, killing and devouring them on every occasion.

## 11. OPHIBOLUS EXIMIUS, B. &amp; G.—Housesnake.

SPEC. CHAR. Grayish ash, with one dorsal series of upwards of fifty transversely elliptical chocolate blotches, with two other alternating lateral series on each side. 214, 54, 21, 40½, 5½ (New-York).

## SYNONYMS.

- Coluber eximius*, DEKAY, (MSS.) and N.Y. Fauna, Rept. 1842, 38, pl. xii. f. 25.—HARL. Journ. Acad. Nat. Sc. Philad. V. 1827, 360; and Med. & Phys. Res. 1835, 123.—STORER, Rep. Rept. Mass. 1839, 227.
- Pseudoelaps Y*, BERTH. Abh. K. Ges. Wiss. Gött. I. 1843, 67, pl. i. f. 11 & 12.
- Ophibolus eximius*, B. & G. 1. c. 1853, 87.
- Housesnake, Milksnake, Chickensnake, Thunder-and-lightning-snake.

The harmless milk- or housesnake, so well known from its habit of coming into the vicinity of houses, is quite common in the Northern States. It only occurs as far west as the Mississippi river. Its southern limit is uncertain, from its having been confounded with the closely allied *O. clericus*. B. & G.

GENUS *BASCANION*, BAIRD & GIRARD.

**GEN. CHAR.** Body slender, elongated : tail very long. Head narrow, deep, long. Eyes very large. Postorbitals 2 : anterior 2 ; upper very large, lower very small, in a notch between the second and third labials. Fourth labial produced up behind the eye, to meet the lower postorbital. Loral 1 ; nasals 2. Vertical much elongated and narrow, concave externally. Dorsal rows of scales 17, all perfectly smooth and subhexagonal. Abdominal scutellæ 170 - 200 ; posterior one divided : subcaudal 90 - 110, all bifid. Colors black or olive ; uniform above, lighter below. Skin between the scales black. Young blotched.

**SYN.** *Bascanion*, B. & G. I. c. 1853, 93.

12. *BASCANION CONSTRICTOR*, B. & G.—Blacksnake.

**SPEC. CHAR.** Vertical diminishing for half its length, then parallel. Centre of eye over the fourth labial. In the adult, color lustrous pitch-black ; above and beneath greenish black, sometimes tinged with greenish white : chin and throat white. The young are olive, with rhomboidal dorsal blotches ; beneath greenish white. 178+1, 93, 17, 40 $\frac{1}{2}$ , 10 $\frac{1}{2}$  (Penn.).

## SYNONYMS.

*Coluber constrictor*, LINN. Syst. Nat. I. 1766, 385.—GM. L. Syst. Nat. ed. xiii. I. iii. 1788, 1109.—HARL. Journ. Acad. Nat. Sc. Philad. V. 1827, 348; and Med. & Phys. Res. 1835, 112.—SCHL. Ess. Phys. Serp. Part. descr. 1837, 133, pl. v. f. 3 and 4.—STORER, Rep. Rept. Mass. 1839, 225.—HOLBR. N. Amer. Herp. III. 1842, 55, pl. xi.—THOMPS. Hist. of Verm. 1842, 117.—DEKAY, N. York Fauna, Rept. 1842, 35, pl. x. f. 20.

*Hierophis constrictor*, BONAP. Fn. Ital. II. 1841, Art. *Col. leopard*.

*Vipera niger*, CATESB. Nat. Hist. Carol. II. 1743, 48, tab. xlviii.

Blacksnake, KALM, Reise N. Amer. II. 1764, 202.—PENN. Arct. Zool. Suppl. II. 1792, 92.

*Bascanion constrictor*, B. & G. I. c. 1853, 93.

The blacksnake, or blue racer, is well known to every one, from its abundance and marked traits of character. It ranges over the whole United States east of the Missouri river : how much further west it extends, is not yet ascertained.

## GENUS CHLOROSOMA, WAGL.

GEN. CHAR. Head elongated, ovoidal, separated from the body by a slender neck : snout protruding. Cephalic plates normal. One nasal plate, with the nostril in the centre : one loreal : one anteorbital ; two post-orbitals. Eyes very large. Mouth deeply cleft. Tail slender, between  $\frac{1}{3}$  and  $\frac{1}{4}$  of total length. Scales all perfectly smooth. Postabdominal scutella bifid : subcaudal all bifid. Color uniform.

SYN. *Chlorosoma*, WAGL. Nat. Syst. der Amph. 1830, 185.

## 13. CHLOROSOMA VERNALIS, B. &amp; G.—Greensnake.

SPEC. CHAR. Uniform green; darker above, lighter beneath. Dorsal scales in fifteen rows. 1384-1, 70, 15, 18,  $5\frac{1}{4}$  (New-York).

## SYNONYMS.

*Coluber vernalis*, DEKAY, MSS.—HARL. Journ. Acad. Nat. Sc. Philad. V. 1827, 361; and Med. & Phys. Res. 1835, 124.—STOREY, Rep. Rept. Mass. 1839, 224.—HOLBR. N. Amer. Herp. III. 1842, 79, pl. xvii.—DEKAY, N. York Fauna, Rept. 1842, 40, pl. xi. f. 22.—THOMPS. Hist. of Verm. 1842, 117.

*Chlorosoma vernalis*, B. & G. l. c. 1853, 108.

This gentle and harmless species, which Dr. DEKAY was the first to introduce to the notice of the scientific world, is generally known as the green or grass-snake. It is quite northern in its distribution, extending from Maine to Wisconsin, and not hitherto found south of Virginia on the Atlantic coast.

## GENUS DIADOPHIS, BAIRD &amp; GIRARD.

**GEN. CHAR.** Head subelliptical, elongated, depressed, distinct from the body. Cephalic plates normal. Two postorbitals, and two anteorbitals. A well-developed loreal. Two nasals; nostril between. Eyes large. Mouth deeply cleft. Body slender, subcylindrical: tail tapering. Scales smooth, disposed in 15 or 17 rows. Postabdominal scutellæ bifid: subcaudal all divided. Unicolor above, and generally with a light ring on the occipital region: abdomen lighter, unicolor or punctate.

**SYN.** *Diadophis*, B. & G. l. c. 1853, 112.

## 14. DIADOPHIS PUNCTATUS, B. &amp; G.—Ringnecked-snake.

**SPEC. CHAR.** A yellowish white occipital ring. Body bluish black above; yellowish orange beneath, with a medial series of spots, sometimes absent. Tail beneath unicolor. Dorsal scales in 15 rows. Eye above the fourth and fifth upper labials. 148+1, 53, 15, 13 $\frac{3}{4}$ , 3 (Penn.).

## SYNONYMS.

- Coluber punctatus*, LINN. Syst. Nat. I. 1776, 376.—GM. L. Syst. Nat. ed. xiii. I. iii. 1788, 1089.—HARL. Journ. Acad. Nat. Sc. Philad. V. 1827, 354; and Med. & Phys. Res. 1835, 117.—STORER, Rep. Rept. Mass. 1839, 225.—HOLBR. N. Amer. Herp. 2d ed. III. 1842, 81, pl. xviii.—DEKAY, N.Y. Fauna, III. 1842, 39, pl. xiv. f. 29.
- Spiletes punctatus*, SWAINS. Nat. Hist. of Fish. Amph. & Rept. II. 1839, 364.
- Calamaria punctata*, SCHL. Ess. Phys. Serp. Part. descr. 1837, 39.
- Diadophis punctatus*, B. & G. l. c. 1853, 112.

This beautiful species is common in the mountainous districts of Pennsylvania and Virginia, and extends from Maine to Wisconsin, being also widely distributed in the south. It is frequently found coiled up beneath flat stones, and the fallen bark of logs, in which situations I have sometimes found as many as twenty in a single day. In Texas, and the far west, it is replaced by other allied species.

## GENUS CELUTA, BAIRD &amp; GIRARD.

**GEN. CHAR.** Head elongated, subelliptical, continuous with the body.

Cephalic plates normal : vertical broad. Superciliaries very small. One nasal : nostril in the middle. No anteorbital. Orbit formed chiefly by the loreal, which is large, and slightly by the postfrontals. Scales smooth.

Postabdominal scutellæ bifid : subcaudals divided. Unicolor.

Differs from *Brachyorrhos* in having two pairs of frontals, and smooth scales.

**SYN.** *Celuta*, B. & G. l. c. 1853, 129.

## 15. CELUTA AMÆNA, B. &amp; G.— Wormsnake.

**SPEC. CHAR.** Above uniform chestnut-brown, opalescent; light yellow (bright salmon-color in life) beneath. Dorsal scales in 13 rows. 128+1, 30, 13, 11 $\frac{3}{4}$ , 1 $\frac{5}{8}$  (Penn.).

## SYNONYMS.

*Coluber amænus*, SAY, Journ. Acad. Nat. Sc. Philad. IV. 1825, 237.— HARL. Journ. Acad. Nat. Sc. Philad. V. 1827, 355; and Med. & Phys. Res. 1835, 118.  
— STOREY, Rep. Rept. Mass. 1839, 226.

*Calamaria amæna*, SCHL. Ess. Phys. Serp. Part. descr. 1837, 31, pl. i. f. 19 & 20.  
— DEKAY, N.Y. Fauna, III. 1842, 49.

*Brachyorrhos amænus*, HOLBR. N. Amer. Herp. III. 1842, 115, pl. xxvii.

*Celuta amæna*, B. & G. l. c. 1853, 129.

This curious species resembles in general shape and exterior a large earthworm, more than any other of our serpents. The glistening exterior, the blunt tail, the head smaller than the body, and the reddish color, all tend to heighten the similarity. It is found under dry logs and stones, particularly in mountainous regions, rarely being seen abroad. It is sparingly distributed throughout the United States east of the Missouri.

## GENUS STORERIA, BAIRD &amp; GIRARD.

GEN. CHAR. Head subelliptical, distinct from the body. Cephalic plates normal. Loral plate absent. Orbitals, two posterior, one or two anterior. Nasals two, rather large. Body small, scarcely exceeding a foot in length, subcylindrical : tail comparatively short, tapering. Dorsal scales 15 - 17 rows, all carinated. Abdominal scutellæ 120 - 140 ; posterior one bifid : subcaudal, all divided, from 41 to 51 in number. Color brown, with two dorsal dotted lines.

SYN. *Storeria*, B. & G. l. c. 1853, 135.

## 16. STORERIA DEKAYI, B. &amp; G.— Spotted-snake.

SPEC. CHAR. One anterior and two posterior orbitals. Dorsal rows 17. Gray or chestnut-brown above, with a clay-colored dorsal band margined by dotted lines. A dark patch on each side of the occipital : a dark bar between this and the eye, and two below the orbit. 128+1, 47, 17, 13, 2 $\frac{1}{2}$  (New-York).

## SYNONYMS.

*Tropidonotus dekayi*, HOLBR. N. Amer. Herp. III. 1842, 53, pl. xiv.—DEKAY, N.Y. Fauna, Rept. 1842, 46, pl. xiv. f. 30.

*Tropidonotus ordinatus*, STORER, Rep. Rept. Mass. 1839, 223.

*Storeria dekayi*, B. & G. l. c. 1853, 135.

This snake is exceedingly abundant in the Northern States, ranging from Maine to Wisconsin, and south to Florida and Texas. Indeed no other species has a more extended distribution. It is everywhere associated with the *S. occipito-maculata*. In New-York, it is very abundant along the shores of Lake Champlain.

## 17. STORERIA OCCIPITO-MACULATA, B. &amp; G.

SPEC. CHAR. Orbitals, two anterior, two posterior. Dorsal scales in 15 rows. Above gray or chestnut-brown, sometimes with a paler vertebral line : beneath red, or salmon-color. Three distinct light-colored spots behind the head, and a smaller one on the fourth or fifth upper labial. 124+1, 43, 15, 9 $\frac{1}{4}$ , 1 $\frac{3}{4}$  (New-York).



## SYNONYMS.

*Tropidonotus occipito-maculatus*, STORER, Rep. Rept. Mass. 1839, 230.

*Coluber venustus*, HALLOW. Proc. Acad. Nat. Sc. Philad. III. 1847, 274; and IV. 1849, 245.

*Storeria occipito-maculata*, B. & G. l. c. 1853, 137.

Nostril almost entirely in the prenasal plate, in some cases the postnasal not entering at all into it. Five to six upper labials, increasing in length posteriorly : lower labials six to seven, similarly constituted. Vertical plate hexagonal, shield-shaped. Muzzle rather broad. Eyes larger than in *S. dekayi*.

Color above light chestnut-brown, sometimes chestnut-gray, at others olivaceous. A paler vertebral line from occiput to end of tail, about three scales in width. On each side of this may be seen a series of minute brown spots, produced by the brown bases of the scales in the third row on each side from the central series. Sometimes the brown covers the whole scale, and gives rise to two dorsal lines : at others it is almost entirely wanting ; and this, connected as it generally is with a less distinct vertebral band, gives the impression of a uniform tint above. Upper margin of the exterior dorsal lines brighter yellowish, giving the effect in some cases of a lateral narrow light line. Abdomen, in life, salmon-color ; in alcohol, whitish yellow, with the sides finely mottled with dark brown, sometimes obsolete, at others constituting very distinct bands : these generally do not encroach upon the dorsal scales. Occasionally, however, the middle of the exterior row of scales exhibits a dark stripe. Immediately behind the occipital plates, and on the median line, is seen a dull salmon-colored blotch ; on each side of which, over the angle of the jaws, is a similar smaller one : the intervals between these blotches sometimes darker. A small salmon-colored spot on the fourth or fifth upper labial, behind the orbit. Plates on the top of the head blotched with darker. Lower jaw minutely dotted with brown.

DESCRIPTION OF A LIVING SPECIMEN CAUGHT AT WESTPORT (N. Y.), AUGUST 1847.—“ Iris dark chesnut, rather lighter above and externally. General color above dull chestnut-brown. Attentively examined, however, when wet, there is seen a faint dorsal stripe of lighter color, bordered by a line on each side of darker, which fades off to the abdominal scutellæ until the color is the same as the dorsal line, or even lighter. Behind the head are three light yellowish brown occipital spots. Whole under parts, except the chin or throat, bright brick-red : chin and throat white, mottled finely with gray and black like pepper and salt. An irregularly defined stripe of the same mottling along the sides from head to anus, crossing the abdominal scutellæ near the outside.”

It is not a little remarkable that this beautiful serpent, with its striking colors, its great abundance and extensive range, should so long have escaped the notice of naturalists. It was entirely unknown to Dr. HOLBROOK, the author of the great work on North-American Herpetology, as well as to Dr. DEKAY, by whom it was not, of course, included in the Fauna of New-York. As already stated, my first acquaintance with it was through Dr. AVERY J. SKILTON of Troy, who showed me a living specimen in the summer of 1847. I subsequently found it common on Lake Champlain, and have since seen numerous specimens from all parts of the United States east of the Missouri river. Associated everywhere with *S. dekayi*, it occurs in Texas, Louisiana, Florida, &c., apparently in as great abundance as further north, where it extends from Maine to Wisconsin.

The first notice of this species was given by Dr. STORER, in the Report of the Reptiles of Massachusetts, 1839, where it is described under the name of *Tropidonotus occipito-maculatus*. A specimen from Lake Superior was subsequently described as *Coluber venustus* by Dr. HALLOWELL. Hitherto it has not formally been introduced as an inhabitant of New-York, although in this State apparently reaching its maximum of abundance.

# Appendix.

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## ORDER OF PUBLICATION OF THE VOLUMES OF NATURAL HISTORY OF NEW-YORK.

[ THIS work is frequently called for, at the office of the Secretary of State, by the number of the volumes, as Vol. 6, or Vol. 10. The following is copied from the memoranda of ARCHIBALD CAMPBELL, esquire, for a long time Deputy Secretary of State : ]

1. ZOOLOGY : Mammalia, 1842 (DEKAY).
2. GEOLOGY : Third District (VANUXEM).
3. MINERALOGY (L. C. BECK).
4. GEOLOGY : Fourth District (EMMONS).
- 5 & 6. ZOOLOGY : Reptiles and Fishes, Text and Plates (DEKAY).
7. GEOLOGY : First District (MATHER).
8. GEOLOGY : Fourth District (HALL).
9. ZOOLOGY : Mollusca and Crustacea (DEKAY).
10. ZOOLOGY : Ornithology (DEKAY).
11. BOTANY : Vol. 1 (TORREY).
12. BOTANY : Vol. 2 (TORREY).
13. AGRICULTURE : Vol. 1 (EMMONS).
14. PALÆONTOLOGY : Vol. 1 (HALL).
15. AGRICULTURE : Vol. 2 (EMMONS).
- 16 & 17. AGRICULTURE : Vols. 3 & 4, Text and Plates (EMMONS).
18. PALÆONTOLOGY : Vol. 2 (HALL).

# [Illegible Title]

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# Appendix.

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## MATERIALS BELONGING TO THE STATE,

WHICH ARE INTENDED TO BE USED IN COMPLETING THE PUBLICATION OF  
THE NATURAL HISTORY,

Received into the Geological Rooms since the first day of January 1853.

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### DEPARTMENT OF PALÆONTOLOGY.

RECEIVED, May 7, 1853, of Richard H. Pease, three thousand printed impressions each, from Plates 8, 9, 10, 11, 14, 17, 18, 20, 21 and 22, for the third volume of the Palæontology.

RECEIVED, August 27th, 1853, of Richard H. Pease, three thousand printed impressions each, from Plates 12, 13, 24, 25, 46 and 47, for the third volume of the Palæontology.

RECEIVED, October 12th, 1853, of Richard H. Pease, three thousand printed impressions each, from Plates 26, 27, 32, 37, 39, 40, 41 and 44, for the third volume of Hall's Palæontology.

RECEIVED, January 7th, 1854, of Richard H. Pease, three thousand printed impressions each, from Plates 31, 33, 35 and 36, for the third volume of Hall's Palæontology.

### DEPARTMENT OF AGRICULTURE.

RECEIVED, February 18, 1853, of John E. Gavit, three thousand printed impressions each, from Plates 18, 19, 20 and 21, for Emmons's volume on Insects.



EIGHTH ANNUAL REPORT

OF THE

REGENTS OF THE UNIVERSITY

OF THE

State of New-York,

ON THE

CONDITION OF THE STATE CABINET

OF

NATURAL HISTORY,

AND OF THE

HISTORICAL AND ANTIQUARIAN COLLECTION

ANNEXED THERETO.

~~~~~  
Made to the Senate, January 15, 1855.  
~~~~~

A L B A N Y :

C. VAN BENTHUYSEN, PRINTER TO THE LEGISLATURE.

No. 407 Broadway.

.....

1855.

SCOTT'S



SPENCER F. BAIRD.

EIGHTH ANNUAL REPORT

OF THE

REGENTS OF THE UNIVERSITY

OF THE

State of New-York,

ON THE

CONDITION OF THE STATE CABINET

OF

NATURAL HISTORY,

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~~~~~  
Made to the Senate, January 15, 1855.  
~~~~~

A L B A N Y :

C. VAN BENTHUYSEN, PRINTER TO THE LEGISLATURE.

No. 407 Broadway.

.....

1855.

Small 2nd Edition

THE HISTORY OF THE

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# State of New-York.

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No. 40.

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IN SENATE, JAN. 15, 1855.

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EIGHTH ANNUAL REPORT.

---

TO THE HON. HENRY J. RAYMOND,

Lieutenant-Governor, and President of the Senate.

SIR :

I HAVE the honor to transmit the Annual Report of the Regents of the University, on the State Cabinet of Natural History and the Historical and Antiquarian Collection annexed thereto.

I remain, very respectfully,

Your obedient servant,

G. Y. LANSING, *Chancellor.*

JANUARY, 1855.

STATE OF TEXAS

COUNTY OF [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

## REGENTS OF THE UNIVERSITY, 1855.

---

GERRIT Y. LANSING, *Chancellor.*

JOHN GREIG, *Vice-Chancellor.*

MYRON H. CLARK, Governor, *ex officio.*

HENRY J. RAYMOND, Lieutenant-Governor, *ex officio.*

ELIAS W. LEAVENWORTH, Secretary of State, *ex officio.*

VICTOR M. RICE, Superintendent of Public Instruction, *ex officio.*

GULIAN C. VERPLANCK, LL.D.

JOHN K. PAIGE.

ERASTUS CORNING.

PROSPER M. WETMORE.

JOHN L. GRAHAM.

JOHN M'LEAN.

GIDEON HAWLEY, LL.D.

DAVID BUEL.

JAMES S. WADSWORTH.

JOHN V. L. PRUYN, LL.D.

JABEZ D. HAMMOND, LL.D.

JOHN L. O'SULLIVAN.

ROBERT CAMPBELL.

REV. SAMUEL LUCKEY, DD.

ROBERT G. RANKIN.

PHILIP S. VAN RENSSELAER.

JOHN N. CAMPBELL, DD.

T. ROMEYN BECK, *Secretary.*

STANDING COMMITTEE OF THE REGENTS,

SPECIALLY CHARGED WITH THE CARE OF THE STATE CABINET.

---

1854.

HORATIO SEYMOUR, *Governor.*

ELIAS W. LEAVENWORTH, *Secretary of State.*

ERASTUS CORNING.

JOHN K. PAIGE.

JOHN L. O'SULLIVAN.

---

1855.

MYRON H. CLARK, *Governor.*

ELIAS W. LEAVENWORTH, *Secretary of State.*

ERASTUS CORNING.

ROBERT G. RANKIN.

JOHN K. PAIGE.

JOHN GEBHARD JUNIOR, *Curator.*

JAMES A. HURST, *Taxidermist.*

# REPORT.

---

TO THE LEGISLATURE OF THE STATE OF NEW-YORK.

The Regents of the University

RESPECTFULLY REPORT :

That the extremely crowded condition of the present collection, and the passage of the law for improving and enlarging the building containing it, have prevented any unusual efforts for its increase.

A fair portion of success has, however, attended the labors of our collector, in obtaining sundry animals and birds, and thus filling up the few vacancies that remain in those departments.

Among those that have been added, are some which may be deemed curiosities. A Deer, perfectly white, and which was taken in Hamilton county in 1852, is of this description. A pair of young panthers, but a few months old, have, on account of their rarity and the approaching extirpation of the species, also been purchased.

A few specimens have also been obtained for the other classes of Natural History, principally by donations. The Regents have the promise of a large collection of Fish native to this State, from Professor BAIRD of the Smithsonian Institution ; but for reasons already intimated, they have been obliged to decline its reception until some time during the current year.

Professor DEWEY, of the Rochester University, has also promised to present a collection of freshwater Shells, found in this State, and which will form an important and much needed addition.

The specimens obtained in the remaining divisions of the State Cabinet, and in the Antiquarian Collection, will be seen by referring to the Appendix.

As usual, the Curator reports the materials deposited with him during the year, for the publication of the Natural History of New-York.

The concluding article of the Appendix, by the Curator, consists of a catalogue of the Fish credited to the State of New-York by the late Dr. DEKAY, and of those which have been subsequently published as such by later writers. From this, it will be seen how imperfect this division still remains. As soon as the new arrangement consequent on the renovation of the building can be completed, every effort will be made to diminish the deficiencies. In the higher departments of Natural History, this has been nearly accomplished.

By Order of the Regents.

T. ROMEYN BECK, *Secretary.*

G. Y. LANSING, *Chancellor.*



## ACCOUNT CURRENT.

*The Regents of the University, in account current with the appropriation for preserving and increasing the "State Cabinet of Natural History, and the Historical and Antiquarian Collection annexed thereto," and for defraying the incidental expenses of the same.*

### DR.

	To balance of former appropriation remaining in bank (See Senate Document of 1854, No. 50).....	\$761 21
1854, Oct. 2.	To cash received from the Comptroller, being the annual appropriation for the State Cabinet from October 1854, to October 1855 .....	800 00
		\$1561 21

### CR.

1854,		
Jan. 13.	By cash paid J. A. Hurst, taxidermist, quarter's salary to December 1, 1853..... (No. 1),	\$50 00
Jan. 21.	By cash paid contingent expenses, 5 vouchers, including 130 glass-stopped bottles for the collection of fish from the Smithsonian Institution..... (No. 2),	32 01
Jan. 28.	By cash paid J. A. Hurst for an albino deer, stuffed,	150 00
May 23.	By cash paid J. A. Hurst, salary two quarters from December 1, 1853, to June 1, 1854 .....	100 00
June 2.	By cash paid James A. Hurst, for various preserved animals, vix :	
	Black Bear (female), very large.....	\$75 00
	Red Wolf .....	50 00
	Fisher, or Black Cat (female) .....	30 00
	*Great White Heron (presented).....	10 00
	Sea Lamprey Eel (presented) .....	5 00
	Horsefoot Crab .....	5 00
	Bonaparte's Gull (presented).....	2 50
	2 Silver-grey Squirrels (presented) ...	5 75
	Texas Frog (presented) .....	1 50
		(No. 5), 184 75

Carried forward.... \$

\* Acknowledged in last report.

		Brought forward...	\$	
1854,				
July 3.	By cash paid for various contingent expenses :			
	Dexter & Nelligar, for camphor and alcohol for			
	2½ years.....	\$27	16	
	Directory and express charges.....	1	18	
	(No. 6),	_____		28 54
Sept. 15.	By cash paid J. A. Hurst, salary for quarter ending			
	September 1, 1854 .....	(No. 7),		50 00
"	By cash paid John Martindale, for Indian Relics found			
	at Lake George .....	(No. 8),		3 75
Oct. 12.	By cash paid Nathan B. Cooley for specimens of Petrified Wood? (supposed to indicate Coal), found in Orange county.....	(No. 9),		12 00
Nov. 13.	By cash paid for contingent expenses :			
	Weed & Parsons, printing and binding, \$12 75			
	Freight on box from Orange county... 1 96			
	(No. 10),	_____		14 65
Dec. 8.	By cash paid J. A. Hurst, quarter's salary to Dec. 1, 1854 .....	(No. 11),		50 00
"	By cash for contingent expenses :			
	Van Heusen & Charles, glass bottles, \$2 67			
	Curator's sundries for the year..... 2 00			
	(No. 12),	_____		4 67
"	By cash paid James A. Hurst for various preserved animals, viz :			
	Two Young Panthers.....	\$100	00	
	Mink (female).....	5	00	
	Two Striped Squirrels (male and female),	5	00	
	Two Bitterns (young).....	5	00	
	Blackcrowned Night-heron (presented),	5	00	
	American Angler (fish) .....	4	00	
	Mounting Alligator (presented).....	15	00	
	Mounting Albino Striped Squirrel (do.),	2	00	
	*Mounting Buffalo Bony Pike .....	3	00	
	(No. 13),	_____		144 00
	Balance to new account .....			736 84
				<u>\$1561 21</u>

## COPY.

I certify that there is the sum of seven hundred and thirty-six 84-100 dollars standing to the credit of the State Cabinet of Natural History, on the books of this bank. ALBANY CITY BANK : December 9, 1854.

(Signed) H. H. MARTIN, Cashier.

We have examined the above account, and find it correct. The payments have been made by order of the standing committee, and are accompanied with proper vouchers.

HORATIO SEYMOUR,  
E. W. LEAVENWORTH,  
ERASTUS CORNING.

\* Acknowledged in the 4th Report.

## CONTENTS OF THE APPENDIX.

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- A. Catalogue of the quadrupeds, birds, reptiles, fishes, etc. added to the State Cabinet from January 1, 1854, to January 1, 1855.
- B. Catalogue of minerals, geological specimens and fossils, do. do.
- C. Additions to the historical and antiquarian collection, do. do.
- D. Materials received at the State Geological Rooms, towards completing the volumes now printing on Insects (just completed) and Palæontology ; also materials which have been heretofore used in publishing the Natural History, do. do.
- E. Miscellaneous, do. do.
- F. Catalogue of all the fishes at present known as belonging to the State of New-York, and designating those that are now in the State Cabinet.

The following is a list of the names of the persons who have been admitted to the membership of the Society since the last meeting of the Council.

Name	Address	Date of Admission
Mr. J. H. Smith	123 Main St., New York	Jan. 15, 1888
Mr. W. B. Jones	456 Broadway, New York	Feb. 1, 1888
Mr. C. D. Brown	789 Third St., New York	Feb. 15, 1888
Mr. E. F. Green	1010 Fourth St., New York	Mar. 1, 1888
Mr. G. H. White	1111 Fifth St., New York	Mar. 15, 1888
Mr. I. J. Black	1212 Sixth St., New York	Apr. 1, 1888
Mr. K. L. Gray	1313 Seventh St., New York	Apr. 15, 1888
Mr. M. N. Blue	1414 Eighth St., New York	May 1, 1888
Mr. O. P. Red	1515 Ninth St., New York	May 15, 1888
Mr. Q. R. Purple	1616 Tenth St., New York	Jun. 1, 1888
Mr. S. T. Yellow	1717 Eleventh St., New York	Jun. 15, 1888
Mr. U. V. Green	1818 Twelfth St., New York	Jul. 1, 1888
Mr. W. X. Blue	1919 Thirteenth St., New York	Jul. 15, 1888
Mr. Y. Z. Red	2020 Fourteenth St., New York	Aug. 1, 1888
Mr. A. B. Purple	2121 Fifteenth St., New York	Aug. 15, 1888
Mr. C. D. Yellow	2222 Sixteenth St., New York	Sep. 1, 1888
Mr. E. F. Green	2323 Seventeenth St., New York	Sep. 15, 1888
Mr. G. H. Blue	2424 Eighteenth St., New York	Oct. 1, 1888
Mr. I. J. Red	2525 Nineteenth St., New York	Oct. 15, 1888
Mr. K. L. Purple	2626 Twentieth St., New York	Nov. 1, 1888
Mr. M. N. Yellow	2727 Twenty-first St., New York	Nov. 15, 1888
Mr. O. P. Green	2828 Twenty-second St., New York	Dec. 1, 1888
Mr. Q. R. Blue	2929 Twenty-third St., New York	Dec. 15, 1888
Mr. S. T. Red	3030 Twenty-fourth St., New York	Jan. 1, 1889
Mr. U. V. Purple	3131 Twenty-fifth St., New York	Jan. 15, 1889
Mr. W. X. Yellow	3232 Twenty-sixth St., New York	Feb. 1, 1889
Mr. Y. Z. Green	3333 Twenty-seventh St., New York	Feb. 15, 1889
Mr. A. B. Blue	3434 Twenty-eighth St., New York	Mar. 1, 1889
Mr. C. D. Red	3535 Twenty-ninth St., New York	Mar. 15, 1889
Mr. E. F. Purple	3636 Thirtieth St., New York	Apr. 1, 1889
Mr. G. H. Yellow	3737 Thirty-first St., New York	Apr. 15, 1889
Mr. I. J. Green	3838 Thirty-second St., New York	May 1, 1889
Mr. K. L. Blue	3939 Thirty-third St., New York	May 15, 1889
Mr. M. N. Red	4040 Thirty-fourth St., New York	Jun. 1, 1889
Mr. O. P. Purple	4141 Thirty-fifth St., New York	Jun. 15, 1889
Mr. Q. R. Yellow	4242 Thirty-sixth St., New York	Jul. 1, 1889
Mr. S. T. Green	4343 Thirty-seventh St., New York	Jul. 15, 1889
Mr. U. V. Blue	4444 Thirty-eighth St., New York	Aug. 1, 1889
Mr. W. X. Red	4545 Thirty-ninth St., New York	Aug. 15, 1889
Mr. Y. Z. Purple	4646 Fortieth St., New York	Sep. 1, 1889
Mr. A. B. Yellow	4747 Forty-first St., New York	Sep. 15, 1889
Mr. C. D. Green	4848 Forty-second St., New York	Oct. 1, 1889
Mr. E. F. Blue	4949 Forty-third St., New York	Oct. 15, 1889
Mr. G. H. Red	5050 Forty-fourth St., New York	Nov. 1, 1889
Mr. I. J. Purple	5151 Forty-fifth St., New York	Nov. 15, 1889
Mr. K. L. Yellow	5252 Forty-sixth St., New York	Dec. 1, 1889
Mr. M. N. Green	5353 Forty-seventh St., New York	Dec. 15, 1889
Mr. O. P. Blue	5454 Forty-eighth St., New York	Jan. 1, 1890
Mr. Q. R. Red	5555 Forty-ninth St., New York	Jan. 15, 1890
Mr. S. T. Purple	5656 Fiftieth St., New York	Feb. 1, 1890
Mr. U. V. Yellow	5757 Fifty-first St., New York	Feb. 15, 1890
Mr. W. X. Green	5858 Fifty-second St., New York	Mar. 1, 1890
Mr. Y. Z. Blue	5959 Fifty-third St., New York	Mar. 15, 1890
Mr. A. B. Red	6060 Fifty-fourth St., New York	Apr. 1, 1890
Mr. C. D. Purple	6161 Fifty-fifth St., New York	Apr. 15, 1890
Mr. E. F. Yellow	6262 Fifty-sixth St., New York	May 1, 1890
Mr. G. H. Green	6363 Fifty-seventh St., New York	May 15, 1890
Mr. I. J. Blue	6464 Fifty-eighth St., New York	Jun. 1, 1890
Mr. K. L. Red	6565 Fifty-ninth St., New York	Jun. 15, 1890
Mr. M. N. Purple	6666 Sixtieth St., New York	Jul. 1, 1890
Mr. O. P. Yellow	6767 Sixty-first St., New York	Jul. 15, 1890
Mr. Q. R. Green	6868 Sixty-second St., New York	Aug. 1, 1890
Mr. S. T. Blue	6969 Sixty-third St., New York	Aug. 15, 1890
Mr. U. V. Red	7070 Sixty-fourth St., New York	Sep. 1, 1890
Mr. W. X. Purple	7171 Sixty-fifth St., New York	Sep. 15, 1890
Mr. Y. Z. Yellow	7272 Sixty-sixth St., New York	Oct. 1, 1890
Mr. A. B. Green	7373 Sixty-seventh St., New York	Oct. 15, 1890
Mr. C. D. Blue	7474 Sixty-eighth St., New York	Nov. 1, 1890
Mr. E. F. Red	7575 Sixty-ninth St., New York	Nov. 15, 1890
Mr. G. H. Purple	7676 Seventieth St., New York	Dec. 1, 1890
Mr. I. J. Yellow	7777 Seventy-first St., New York	Dec. 15, 1890
Mr. K. L. Green	7878 Seventy-second St., New York	Jan. 1, 1891
Mr. M. N. Blue	7979 Seventy-third St., New York	Jan. 15, 1891
Mr. O. P. Red	8080 Seventy-fourth St., New York	Feb. 1, 1891
Mr. Q. R. Purple	8181 Seventy-fifth St., New York	Feb. 15, 1891
Mr. S. T. Yellow	8282 Seventy-sixth St., New York	Mar. 1, 1891
Mr. U. V. Green	8383 Seventy-seventh St., New York	Mar. 15, 1891
Mr. W. X. Blue	8484 Seventy-eighth St., New York	Apr. 1, 1891
Mr. Y. Z. Red	8585 Seventy-ninth St., New York	Apr. 15, 1891
Mr. A. B. Purple	8686 Eightieth St., New York	May 1, 1891
Mr. C. D. Yellow	8787 Eighty-first St., New York	May 15, 1891
Mr. E. F. Green	8888 Eighty-second St., New York	Jun. 1, 1891
Mr. G. H. Blue	8989 Eighty-third St., New York	Jun. 15, 1891
Mr. I. J. Red	9090 Eighty-fourth St., New York	Jul. 1, 1891
Mr. K. L. Purple	9191 Eighty-fifth St., New York	Jul. 15, 1891
Mr. M. N. Yellow	9292 Eighty-sixth St., New York	Aug. 1, 1891
Mr. O. P. Green	9393 Eighty-seventh St., New York	Aug. 15, 1891
Mr. Q. R. Blue	9494 Eighty-eighth St., New York	Sep. 1, 1891
Mr. S. T. Red	9595 Eighty-ninth St., New York	Sep. 15, 1891
Mr. U. V. Purple	9696 Ninetieth St., New York	Oct. 1, 1891
Mr. W. X. Yellow	9797 Ninety-first St., New York	Oct. 15, 1891
Mr. Y. Z. Green	9898 Ninety-second St., New York	Nov. 1, 1891
Mr. A. B. Blue	9999 Ninety-third St., New York	Nov. 15, 1891
Mr. C. D. Red	10000 Ninety-fourth St., New York	Dec. 1, 1891

# Appendix

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A

## CATALOGUE

OF THE

QUADRUPEDS, BIRDS, REPTILES, FISHES, &c.

ADDED TO THE

STATE CABINET OF NATURAL HISTORY,

FROM JANUARY 1, 1854, TO JANUARY 1, 1855.

1875

1875

CATALOGUE

OF THE

LIBRARY OF THE

UNIVERSITY OF

CHICAGO

PRINTED BY

# MAMMALIA.

## ORDER III. CARNIVORA.

### FAMILY URSIDÆ.

- URSUS AMERICANUS, *American Black Bear* (female) ..... p. 24  
ZOOLOGY—Part I.  
This specimen was taken in St. Lawrence county, New-York, in the  
spring of 1854.

### FAMILY MUSTELIDÆ.

- MUSTELA CANADENSIS, *The Fisher* (female) ..... 31  
Taken in Lewis county, New-York, in the spring of 1854.
- PUTORIUS VISON, *The Mink* (female) ..... 37

### FAMILY CANIDÆ.

- LUPUS OCCIDENTALIS, *The Common American Wolf* (male) ..... 42  
Taken in St. Lawrence county, New-York, in the spring of 1854.

### FAMILY FELIDÆ.

- FELIS CONCOLOR, *The Northern Panther* (young male and female), 47  
Taken in St. Lawrence county, New-York, in the spring of 1854.

## ORDER IV. RODENTIA.

### FAMILY SCIURIDÆ.

- SCIURUS VULPINUS, *The Fox Squirrel* (male and female)..... 59  
These specimens were taken in Rensselaer county, New-York, in the  
spring of 1854, and presented to the State Cabinet by J. B. LOT-  
TRIDGE of Hoosick-falls.
- SCIURUS STRIATUS, *The Striped Squirrel* (male and female)..... 62  
From Albany county.
- SCIURUS STRIATUS, *The Striped Squirrel* (albino) ..... 62  
This specimen, which is an albino, was taken in the town of New-  
Scotland, Albany county, in the fall of 1854, and presented to the  
State Cabinet by JOHN YOUNG.

## ORDER VI. UNGULATA.

## FAMILY CERVIDÆ.

CERVUS VIRGINIANUS, *The American Deer* (buck) . . . . . 113

This beautiful and unique specimen, which is of a milky white color, was taken in the town of Hope, Hamilton county, New-York, in the spring of 1852.



## BIRDS.

## ORDER I. ACCIPITRES.

## FAMILY STRIGIDÆ.

- ZOOLOGY—Part II.
- BUBO VIRGINIANUS, *Great-horned Owl*..... p. 24  
 Taken in the town of Stuyvesant, Columbia county (N.Y.), in the month of November 1854, and presented to the State Cabinet by AARON VAN ALLEN.

## ORDER IV. GRALLÆ.

## FAMILY GRUIDÆ.

- ARDEA VIRESCENS, *The Green Heron* (young male and female).... 224  
 Taken near the city of Albany, in the summer of 1854.
- ARDEA DISCORS, *Black-crowned Night-heron* (female)..... 227  
 Taken in the town of Guilderland, Albany county, in the summer of 1854, and presented to the State Cabinet by ALEXANDER C. GRANT of the city of Albany.

## ORDER VI. NATATORES.

## FAMILY LARIDÆ.

- LARUS BONAPARTII, *Bonaparte's Gull* (male) ..... 311  
 This specimen was taken in the town of New-Scotland, Albany county, in the summer of 1854, and presented to the State Cabinet by SAMUEL DICKSON, M.D.

FROM SAMUEL DICKSON, OF NEW-SCOTLAND, ALBANY COUNTY.  
 BONES of one of the Wings of the ALBATROSS.

*Some Observations on the CLIFF SWALLOW (Hirundo fulva), its habits and first appearance at Nichols, Tioga county, N.Y.* By ROBERT HOWELL.

The Cliff Swallow made its first appearance in this vicinity about the year 1838 or 9, in small numbers, and has since that time increased yearly. For the first few years they made their appearance annually about the first of June, and generally left the first of September. I have known them some years to disappear by the twentieth of August, while in other years they continued until the middle of September. In the year 1852, a few made their appearance the last day of April, and their numbers constantly increased till the middle of May; and they all left the last day of August.

The first I noticed these swallows was their building their nests under the eaves of one of my barns, which stands within a few yards of the highway, and within four rods of a mill-pond, on a very low flat. The chance for building their nests at this barn is good; the road furnishing, after rain, a large amount of mud. When the mud in the road is dried up, I have noticed them collect it and wet it in the pond, and I have also seen them collect it from the edge of the pond.

For the first few years their nests amounted to not more than fifteen or twenty on the above named barn; but for the last three or four years, there have been from one hundred and twenty to one hundred and sixty. Last year there were sixty-four nests on the south side of the barn, and seventy-six on the north side. For a number of years, three-fourths of their nests were built on the south side, and a number were built on an adjoining shed. I have two other barns with sheds, that stand upon a diluvial formation which is stony and the soil very dry. I have known the swallows to come in large flocks after a heavy rain, and attempt to build their nests under the eaves of these barns; but the dryness of the earth always prevented their finishing them, so that they had to abandon them, and I have never known more than two or three that were fully completed. Some seasons, their nests, or a majority of them, after being abandoned by the birds, fall to the ground: when this happens, the birds have a great amount of work to do on their return in the spring. It is singular to notice how regular each pair of birds go to their own nest. I have hardly ever seen any fighting among them; and when that was the case, the intruders had built their nests upon the top, or partly so, of other nests.

A building has a singular appearance with a row of nests so close that they touch, nearly from one end of the building to the other; made wholly of mud, and of the size of a large quart bowl, with the passage to the inside of the nest near the upper side and of an inch or more in diameter. Often when the weather is very warm, a large portion of the outside of the roof will be covered with them, undoubtedly for the purpose of sunning. Their long continuance in this region enables them to hatch and rear two broods in a season. One will readily perceive what a large number of these birds is annually produced.

## REPTILES.

## ORDER II. SAURIA.

## FAMILY EMYSAURIDÆ.

ALLIGATOR MISSISSIPPIENSIS, *The Mississippi Alligator.*

This specimen was taken in the State of Georgia by JOHN M'MICHAEL, and is presented to the State Cabinet by R. L. JOHNSON of the city of Albany.

## FAMILY AGAMIDÆ.

PHRYNOSOMA CORNUTA, *Horned Frog* (from Texas).

Presented by Messrs. HOOD & TOBY of the city of Albany.

## FISHES.

## FAMILY SCOMBRIDÆ.

CARANX CHRYSOS, *The Yellow Caranx* or *Yellow Mackerel*.

Dekay's New-York Fauna, pa. 121, pl. 27, f. 85. Taken in New-York harbor in the summer of 1854. Presented by J. A. HURST of Albany.

## FAMILY LOPHIDÆ.

BATRACHUS CELATUS, *The Two-spined Toad-fish*.

Dekay's New-York Fauna, pa. 170, pl. 50, f. 161. Taken at the foot of Cortland-street, New-York harbor, in the summer of 1854. GEBHARD.

## FAMILY ESOCIDÆ.

BELONE TRUNCATA, *The Banded Garfish*.

Dekay's New-York Fauna, pa. 227, pl. 35, f. 112. Taken in the Hudson river near the city of Albany, in the month of August 1854. GEBHARD.

## FAMILY ECHENEIDÆ.

ECHENEIS ALBICAUDA, *The White-tailed Remora* or *Shark Sucker*.

Dekay's New-York Fauna, pa. 307, pl. 54, f. 177. This specimen was caught in the Hudson river at Singing, in September 1854, and presented to the State Cabinet by Capt. JOHN HITCHCOCK.

## FAMILY PETROMYZONIDÆ.

PETROMYZON AMERICANUS, *The American Sea-lamprey*.

Dekay's New-York Fauna, pa. 379, pl. 66, f. 216. Taken in the Hudson river near the city of Albany, in the spring of 1854, and presented to the State Cabinet by ISAAC V. FRYER.

## CONCHOLOGY.

## FAMILY NATADES.

*UNIO COSTATUS*, Rafinesque.

From Wildcat river, Kansas territory. Presented by LEVAN SMITH  
of Kansas.

FROM MRS. ANN M. REDFIELD, OF SYRACUSE, ONONDAGA  
COUNTY, NEW-YORK.

Twenty-five specimens of *UNIOS* and *ANODONS*, from the Ottawa river,  
near L'Original, Canada West.

The following note from Mrs. REDFIELD, giving a description of the  
locality, etc. of the specimens, was subsequently received.

## MR. GEBHARD:

The shells I handed you the other day should have been accompanied by their locality, which was from the Ottawa river, near L'Original, Canada West, seventy five miles from Montreal, and nine from the Caledonia Mineral Springs, which are the Saratoga of Canada. *Unios* and *Anodons* are found in abundance upon the shore of the river; but the bright, glossy *Unio* (I believe it is the *U. ventricosus*) is only obtained by wading around the sandbars when the river is low. Of two hundred *Unios* collected, and which I opened, not more than a dozen were like the bright pink one; so that I am confident the color is not the result of disease, as has been supposed by some: neither is it owing to the age of the shell, for small ones and large ones of the same color were obtained. These, as well as the *U. complanatus*, are sometimes eaten, and much esteemed by some persons: others contend that they are poisonous. The inmates of these were eaten by a little Scotch lad, with as great a relish as our oysters; but the taste, I think, must be an acquired one. *Anodons* are also used for food by some of the inhabitants.

I found but few specimens of the *Anodon edentula*, and not more than half a dozen of the *Unio alatus* and *U. rectus*, and only one of each with the animal in it. The *Unios* with the eroded beaks and solid shells (*U. nasutus* or *rostratus*) were all dead shells, found in a pool left on the shore as the Ottawa subsided during the extreme drouth. The *Alasmodons* were also found dead on the shore of a

millpond formed by a small stream which puts into the Ottawa a few rods below. The pond is strewn with *Paludina vivipara*, a few *Cyclades*, and occasionally a *Planorbis* and *Physa*. Land shells are rare : I saw but one during the season.

Limestone filled with fossils of the Trenton group is found about three miles from L'Original, at a place called the Bay. It receives a fine polish, but the minute quartz crystals which are disseminated through the stone renders it difficult to work.

The Rev. Mr. BELL has collected fine specimens of Fossil Fish about nine miles from Bytown, upon a stream that flows into the Ottawa below that place. He has also found the *Saxicava* and other fossil shells on the shore opposite L'Original, in a bank of clay ; but I was unsuccessful in my search for them.

In three rambles on the shore of the Ottawa, I found six genera and twenty or twenty-two species of the *Unio*, *Anodon*, *Alasmodon*, *Cyclas*, *Paludina* and *Physa*. I found *Lymnaeus* twenty miles below, at St. Andrew.

Yours, ANN M. REDFIELD.

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## CRUSTACEA.

### ORDER PECTILOPODA.

**POLYPHEMUS OCCIDENTALIS**, *Horsefoot or King-crab*.

Dekay's New-York Fauna, p. 55. From the eastern shore of Long Island.

# Appendix.

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B.

LIST

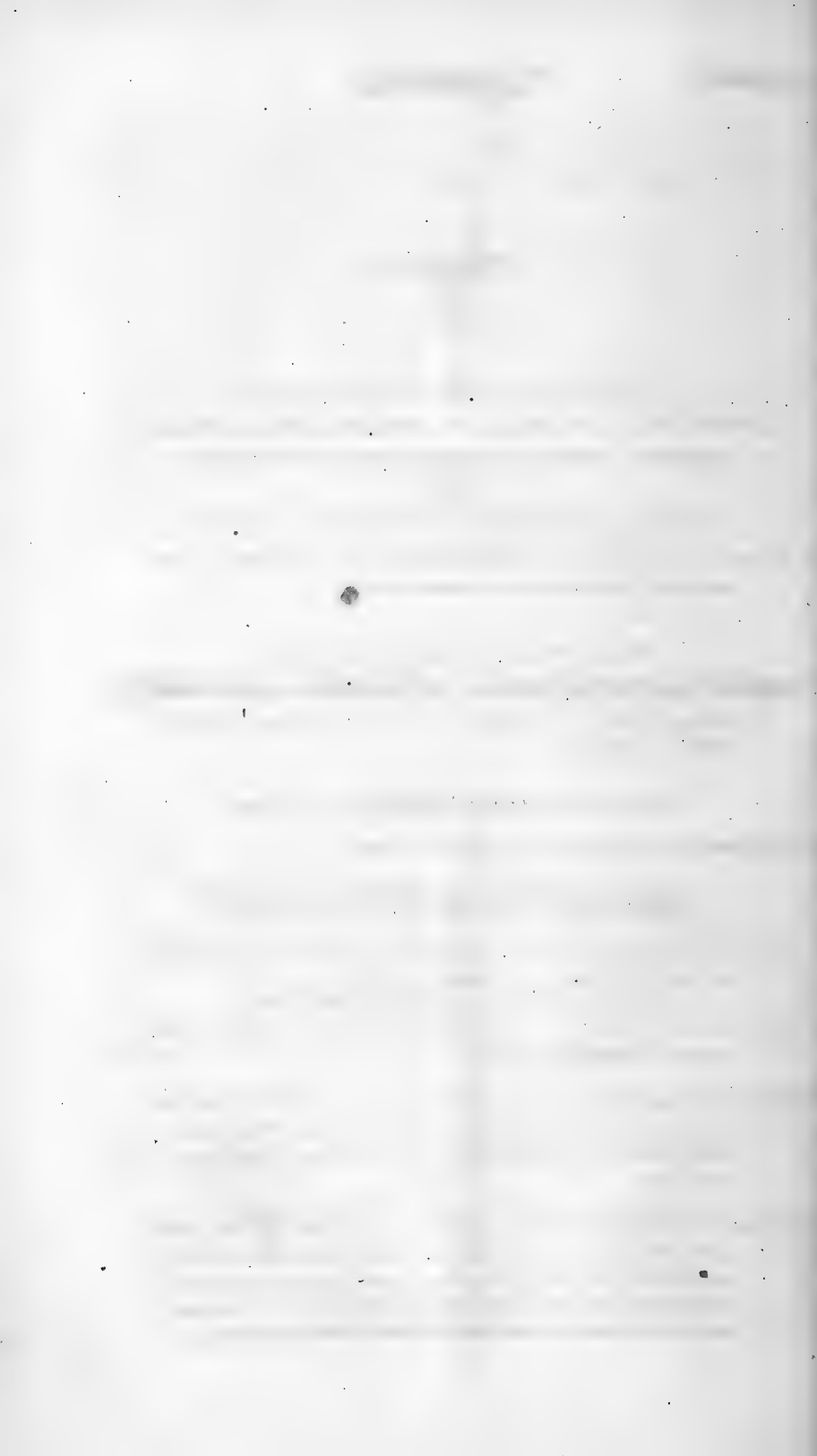
OF

MINERALS, GEOLOGICAL SPECIMENS AND FOSSILS,

ADDED TO THE

STATE CABINET OF NATURAL HISTORY,

FROM JANUARY 1, 1854, TO JANUARY 1, 1855.





## MINERALS.

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FROM HENRY OSTRANDER, OF ALBANY.

A QUARTZ CRYSTAL, from the town of Bethlehem, containing RUTILE (red oxide of titanium) in the form of long capillary prisms.

FROM J. M. AMES, OF COHOES, ALBANY COUNTY.

A specimen of IRON ORE from the Palmer ore bed, Blackbrook, Clinton county, encrusted with quartz crystals.

FROM HORACE AVERILL, OF ALBANY.

GARNETS crystallized in the form of the dodecahedron with rhombic faces, imbedded in mica slate. From Washington, Litchfield county, Connecticut.

FROM MRS. GEORGE HARRIS, OF ALBANY.

Two specimens of QUARTZ from Herkimer county.

FROM JOHN GEBHARD JUNIOR, OF ALBANY.

GEODE OF QUARTZ, lined with CHALCEDONY. From the rock formation at Keokuk, Illinois, on the banks of the Mississippi river.

COARSE AGATE. From the rock formation at Quincy, Illinois, on the banks of the Mississippi river.

RUTILE, in capillary prisms intersecting each other, imbedded in calcareous spar. From a locality near Spraker's basin, Montgomery county, New-York, discovered by John Gebhard junior in the year 1838.

A large number of CLAY BALLS (indurated clay), from the clay banks in the vicinity of the city of Albany. These specimens had been deposited for some time in the room occupied by the Regents of the University in the State Hall. By the direction of the Regents, they are now placed in the State Cabinet of Natural History.

FROM J. W. BARKER & CO. OF SYRACUSE, ONONDAGA COUNTY.

Specimens of SOLAR SALT, manufactured by the Syracuse Coarse Salt Company.

FROM PIERRE VAN CORTLAND, OF WESTCHESTER COUNTY, N.Y.

A specimen of SULPHURET OF IRON, from Anthony's Nose, in the Highlands.

FROM NATHAN B. COOLEY, OF MONROE, ORANGE COUNTY, N.Y.

Several large masses of COMPACT SLATE, which have a striking resemblance to fragments of fossil trees. They are from the slate formation of the town of Monroe, Orange county, New-York, and were forwarded to the State Cabinet as indications of a coal formation, supposing them to be veritable petrified stumps and parts of fossil trees.

These specimens have been submitted to the examination of Mr. HALL, the State Palæontologist, who pronounces them to be merely concretions, and not petrified wood.

FROM JACOB B. HAWK, OF BERKS COUNTY, PENNSYLVANIA.

A specimen of WATER-LIME, from the farm of THOMAS L. ALLEN, in the town of Pleasantvalley, Dutchess county, New-York.

A specimen of LEAD ORE, from the lands of WARD BRYAN, in the town of Northeast, Dutchess county, New-York.

Seven varieties of MARBLE, polished, from the lands of THOMAS L. ALLEN, in the town of Pleasantvalley, Dutchess county, N.Y.

FROM BENJAMIN P. JOHNSON, OF ALBANY.

Two specimens of GOLD-BEARING QUARTZ, from California.

## GEOLOGICAL (INCLUDING FOSSILS).

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FROM GEN. SPINNER, OF MOHAWK, HERKIMER COUNTY, N.Y.

[ Referred to in the Report of last year, page 59.]

PALÆONTOLOGY—Vol. I.

- 135 LINGULA CURTA (2 specimens). From the Utica slate ..... p. 97  
Near Mohawk, Herkimer county.
- 186 ATRYPA INCREBESCENS. From the Utica slate ..... 289  
Near Mohawk, Herkimer county.
- 249 TROCHOLITES AMMONIUS (3 sp.). From the Utica slate ..... 309  
Near Mohawk, Herkimer county.
- 297 CALYMENE BECKII (10). From the Utica slate ..... 250  
Near Mohawk, Herkimer county.
- These specimens are of various sizes, and most of them are perfect.
- 346 AVICULA INSUETA. From the Utica slate ..... 291  
Near Mohawk, Herkimer county.
- 348 AVICULA DESQUAMATA. From the Utica slate ..... 292  
Near Mohawk, Herkimer county.
- AVICULA ——. From the Utica slate.  
Near Mohawk, Herkimer county.
- AVICULA ——. From the Utica slate.  
Near Mohawk, Herkimer county.
- 371 ENDOCERAS PROTEIFORME? (2). From the Utica slate..... 311  
Near Mohawk, Herkimer county.
- 43 ISOTELUS GIGAS. A large caudal shield..... 231  
On a characteristic specimen of the Trenton limestone.
- A piece of CALCAREOUS TUFA, beautifully incrusting and petrifying a specimen of moss. From Herkimer county.

FROM RICHARD H. PEASE, OF ALBANY.

A specimen of LITHOGRAPHIC STONE, from Pappenheim in Germany.

The following British Fossils were received in a small box, some two years since, at the office of the Secretary of the Regents, from the British Natural-History Society, without any advices whether they were to be considered as a donation or not.

**BUCCINUM LABIATUM**, *Sowerby*.

From the Tertiary Eocene beds, Barton cliff.

**CYTHERÆA (INCRASSATA)**, *Sowerby*).

From the Tertiary Eocene beds, Barton cliff.

**DENTALIUM STRIATUM**, *Sowerby*.

From the Tertiary Eocene beds, Barton cliff.

**CYRENA (OBOVATA)**, *Sowerby*).

From the Tertiary Eocene beds, Barton cliff.

**CYTHERÆA** —.

From the Tertiary Eocene beds, Barton cliff.

**Teeth of Sharks (CARCHARIAS)**, 3 sp.

From the Red Crag.

**STROMBUS BARTONENSIS**, *Sowerby*.

Tertiary-Eocene beds, Barton, Hants.

**BULLA HASTULA**, *Charlesworth*.

Tertiary Eocene beds, Barton, Hants.

**FUSUS (ANTIQUUS, Lin.)** reversed, *var.*

Red Crag, Walton, Essex.

**PECTEN (MAXIMUS, Lin.), var.**

Coralline Crag, Ramsholt, Suffolk.

**VENERICARDIA SENILIS**, *Lamarck*.

Coralline Crag, Oxford, Suffolk.

**BALANUS CRASSUS**, *Sowerby*.

Coralline Crag, Oxford, Suffolk.

**EUOMPHALUS PENTANGULATUS**, *Sow. M. G.*

M. L. Kildare.

The following facts in relation to the objects of the Society are condensed from papers accompanying the specimens :

The "BRITISH NATURAL-HISTORY SOCIETY" was established for the prosecution of researches in Natural History, and for the promotion of a taste for this pursuit, by distributing among its members collections of both fossil and recent specimens correctly named, and accompanied by references to works in which the species are described and figured.

The Society proposes to carry on researches by having a permanent staff of collectors located in such districts as are prolific in objects of Natural History, either fossil or recent. Its members receive, in return for their subscriptions, suites of the specimens so obtained.

The Society has a collecting station on the Hampshire coast, and has already distributed more than 12,000 of the beautiful fossils of Barton Cliff and Colwell Bay, besides extending the list of British fossils by the discovery of many new and interesting species.

For any information in relation to the Society, address "The Secretary of the British Natural-History Society, York."

FROM FRANCIS MOORE JUNIOR, OF HOUSTON, TEXAS.

EXOGYRA COSTATA. From the Cretaceous formation near Austin, Texas.

SILICIFIED WOOD, from the Tertiary formation near Bastrop, Texas.

A specimen of the TERTIARY CONGLOMERATE from Montgomery, Texas.

FROM J. H. TAYLOR, OF MACON, GEORGIA.

A specimen of the Georgia BURR-STONE, from Jefferson county, Georgia.

A concretion of siliceous particles resembling somewhat in appearance a gigantic OYSTER, from Twiggs county, Georgia.

These concretions are supposed to be petrified oysters, by the inhabitants residing in the vicinity where they are found.

FROM JOHN GEBHARD JUNIOR, OF ALBANY.

CORALLINES, STEMS OF ENCRINITES, etc. From the rock formation at Keokuk, on the banks of the Mississippi.

SPIRIFER. From the rock formation at Quincy, Illinois, on the banks of the Mississippi.

FROM JOHN FITCH, OF TROY.

A specimen of LIMEROCK from the quarry of SAMUEL B. CAMPBELL of Schodack, Rensselaer county, New-York.

FROM SETH BOUGHTON, OF WESTERLO, ALBANY COUNTY.

A considerable number of FOSSILS from that portion of the Hamilton group which overlies the Flagstone layers at Westerlo, Albany county.

FROM JESSE BUEL JUNIOR, OF ALBANY.

A perfect specimen of LICHAS BOLTONI; and also the MATRIX.

From the shales at Lockport, belonging to the Niagara group.

This beautiful specimen is five and three-fourths inches in length, and four and one-half inches in width. It originally belonged to the late JESSE BUEL, who deposited it in the Cabinet of the Albany Institute. It was withdrawn from the Institute by the request of his son JESSE BUEL junior, and given to the New-York State Collection.

T. A. CONRAD, the Palæontologist to the New-York Survey, in his annual report for the year 1838, page 118, describes this trilobite as the *Platynotus boltoni*; and remarks that "there is a splendid specimen of this species in the collection of the Albany Institute, deposited by Judge BUEL."

In volume 2 of the Palæontology, p. 311, Prof. HALL describes the specimen as *Lichas boltoni*; and on page 313, remarks: "The most perfect specimen I have seen is in the collection of the Albany Institute. The matrix is also preserved with it, showing the cavities of the eyes, from which the form has been taken in the figure of a head (Pl. 70, fig. 1 a)."

[A plate of *Lichas boltoni* accompanies this report. A slight inaccuracy occurred in the engraving of this fossil, by which the third articulation from the base on the lefthand side is represented as double; while it should have been single, as in the corresponding articulation on the righthand side.]

FROM T. ROMEYN BECK, OF ALBANY.

A geological specimen presenting various layers of Rock; from the head of Lake George.

FROM THE DIAMOND SLATE COMPANY OF MIDDLE GRANVILLE,  
WASHINGTON COUNTY, N.Y.

Several large specimens of ROOFING SLATE.

FROM DR. CHARLES MARTIN, U. S. NAVY.

A Rock specimen from the Acropolis at Athens.

FROM CHARLES VAN BENTHUYSEN AND JOHN E. GAVIT, OF  
ALBANY.

A mahogany case containing specimens of the GRANITE used in the construction of the U. S. Dry Dock at Brooklyn. The following is a catalogue of the specimens, and their localities:

- No. 1. Tarrytown quarry, New-York.
2. Breakneck quarry, New-York.
3. Staten Island quarry, New-York.
4. Quincy quarry, Massachusetts.
5. Sullivan quarry, Maine.
6. Blue Hill quarry, Maine.
7. Frankfort quarry, Maine.
8. Millstone Point quarry, Connecticut.

FROM SPENCER F. BAIRD, OF THE SMITHSONIAN INSTITUTION  
AT WASHINGTON.

Specimen of the MARL in which the remains of the *Mastodon maximus*,  
lately discovered near Poughkeepsie, were imbedded.

FROM THE HON. JONATHAN BURNET, OF TICONDEROGA, ESSEX  
COUNTY, N.Y.

A specimen of LIMESTONE from Bytown, Canada West, upon which are two  
large crinoidal columns.

FROM W. HUDSON STEVENS, OF COPENHAGEN, LEWIS COUNTY.

105 STREPTELASMA CORNICULUM (2 sp.). From the Trenton limestone at  
Copenhagen, Lewis county, N.Y. Hall's Palæontology, Vol. i, pa. 69,  
pl. 25, f. 1, a b c d.

CYRTOCERAS? ——. From the Trenton limestone at Copenhagen,  
Lewis county, N.Y.

270 ORTHOCERAS AMPLICAMERATUM. From the Trenton limestone at Co-  
penhagen, Lewis county. Hall's Palæontology, Vol. i, p. 205.

ORMOCERAS ——. From the Trenton limestone at Copenhagen, Lewis  
county.

Received of \_\_\_\_\_  
the sum of \_\_\_\_\_  
for \_\_\_\_\_

\_\_\_\_\_

**RECEIPT FOR THE YEAR 1912**

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# Appendix.

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C.

## ADDITIONS

TO THE

HISTORICAL AND ANTIQUARIAN COLLECTION

IN THE

STATE CABINET OF NATURAL HISTORY,

FROM JANUARY 1, 1854, TO JANUARY 1, 1855.

1911

1911

1911

1911

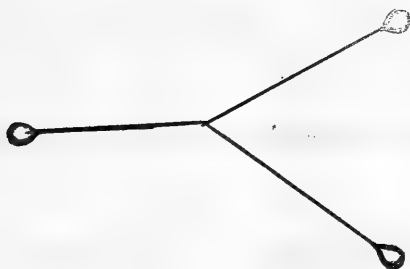
## HISTORICAL AND ANTIQUARIAN COLLECTION.

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FROM DR. CHARLES MARTIN, U. S. NAVY.

**A PEAR-SHAPED STONE**, two and three-fourths inches in length, and two inches in thickness at the largest end. From Patagonia.

This is called '*Bola*' by the Indians of Patagonia, and is used by them for entangling the legs of the Ostrich, etc., or as a missile weapon in their wars. Three of these balls are each enclosed in a case of leather, and fastened to the ends of three cords, each from four to five feet in length : the opposite ends of these cords are all tied together ; and when used, one of the covered balls is held in the hand, while the other two are whirled around the head until they have acquired a sufficient impetus, and then launched at the object of aim. They are carved by the aid of flints alone. The following figure will more fully illustrate the subject.



FROM JOSEPH MATHER, OF ALBANY.

**A piece of IRON**, taken from timber composing the chevaux-de-frise which was placed in the Hudson river near the Highlands during the Revolutionary War.

FROM WILLIAM M. GAFFER, OF WATERVLIET, ALBANY COUNTY.

**THIRTEEN** CHERT ARROWHEADS of different forms, beautifully made, and varying in length from three-fourths of an inch to three inches. They were found in the town of Watervliet, Albany county.

## FROM JAMES T. WYATT, OF ALBANY.

AN **ARROWHEAD** made of greasy quartz, found on the Pine-grove farm in the city of Albany.

ALSO **THREE ARROWHEADS** made of hornstone, found at the same place.

## FROM HENRY OSTRANDER, OF ALBANY.

A **STONE CHISEL** or **HAND AXE**, found in Washington-street in the city of Albany. The specimen is made of hornblende: it is three inches in length by two in width, and highly polished.

## FROM HORACE WEBSTER, OF THE NEW-YORK FREE ACADEMY.

A **CANE** made from an oak plank taken from the wreck of the English ship Merlin, which was sunk at the attack of the British on Fort Mifflin in the year 1777. The plank was procured in the year 1851 by Lieut. Col. WEBSTER of the U. S. Army, having been under water 74 years.

## FROM WILLIAM C. BRYANT, OF ALBION, ORLEANS COUNTY, N.Y.

*List of Indian Relics presented May 4, 1854.*

**FLESHING INSTRUMENT**, or **STONE CHISEL** of Schoolcraft; or **HAND-AXE** of Squier and Davis: four specimens.

These specimens vary in length from three to five inches: two of them are made of talcose slate, and two of graywacke. They were found at Fort Hill, Genesee county, N.Y.

A fragment of a **HUMAN SKULL**, from the intrenchments at Fort Hill, Genesee county.

**IMPLEMENTS** made of deerhorn: five specimens.

From Fort Hill, Genesee county.

A **BONE AWL**. From Fort Hill, Genesee county.

A **BEAR'S TOOTH**, used by the aborigines as a medicine charm.

From Fort Hill, Genesee county.

**Two fragments** of **PIPES** of baked clay.

From Fort Hill, Genesee county.

A **PIPE** made of micaceous sandstone, This rude specimen is two inches in length, and three-fourths of an inch in diameter. A hole is made in the end, to the depth of an inch, for the bowl; at the bottom of which it unites with an opening from the side, for the insertion of the stem.

From Fort Hill, Genesee county.

Several fragments of POTTERY (*terra-cottas*).

From Fort Hill, Genesee county.

TWELVE ARROWHEADS, varying in length from one to three inches ; made of hornstone of various shades of color. From Fort Hill, Genesee co.

THREE ARROWHEADS, made of hornstone. From Orleans county, N.Y.

An unfinished ARROWHEAD. From Orleans county.

An ARROWHEAD. From the Tonawanda Indian Reservation, N.Y.

Two broken ARROWHEADS. Found near Redjacket's grave, Buffalo, N.Y.

Two fragments of POTTERY (*terra-cottas*). Found near Redjacket's grave, Buffalo.

Several BEADS made of shells (*wampum*) ; of stone, bone, etc. From an ancient grave near Honeoye Falls.

A large ARROWHEAD, made of agatized hornstone. From Leroy, N.Y.

FLESHING INSTRUMENT, or STONE CHISEL of Schoolcraft ; or

HAND-AXE of Squier and Davis. This beautiful specimen is five and a half inches in length by two and a half in width : it is made of porphyritic greenstone, and was found in Clarkson, Monroe county, N.Y.

FLESHING INSTRUMENT, or STONE CHISEL of Schoolcraft ; or

HAND-AXE of Squier and Davis. This specimen is made of quartzite : it is four inches in length by two in width. From Clarkson, Monroe co.

A SPEARHEAD made of hornstone, five inches in length. From Clarkson, Monroe county.

INDIAN KNIFE, made of agatized hornstone.

The form of this beautiful specimen is a lengthened oval, with one end gradually brought to a point. A small portion of the point has been broken off, leaving the dimensions of the relic as follows : length, six inches ; greatest width, three inches, and thickness one quarter of an inch. The margin is worked down to a sharp edge.

From Clarkson, Monroe county.

The following is a copy of the letter accompanying the specimens.

BUFFALO, May 4, 1854.

DR. BECK :

This is a part of a small collection I have gathered for the State Cabinet: the residue are at Albion. I will send them ere long, and hope to send something which will enrich the State Collection more than this meagre instalment.

Very respectfully, W. C. BRYANT.

## FROM LYMAN COLLINS, OF UPPER MINNESOTA.

A PINCUSHION, ornamented with beads.

A BEAD WORKBAG (small).

A POCKETBOOK, ornamented with beads.

These articles were manufactured by Indians residing at Upper Minnesota.

## FROM H. V. SCATTERGOOD, OF ALBANY.

A piece of OAK WOOD from Com. Perry's flag ship, the Lawrence.

## FROM JOHN R. MILES, OF BETHLEHEM, ALBANY COUNTY.

A STONE GOUGE, found at Cedarhill in the town of Bethlehem, Albany co.

## FROM PIERRE VAN CORTLAND.

A DUTCH TILE (glazed), from an old house in Westchester county. Design, a Flowerpot.

## FROM ALEXANDER FITCH, OF CARLISLE, SCHOHARIE COUNTY.

STONE CHISEL OR HAND-AXE, made of porphyritic greenstone : length, nine inches; width, three inches, and thickness one and a half inches. Found in the valley of the Shetucket river, Connecticut.

A STONE IMPLEMENT, made of greenstone. This relic (which differs from any of those described in the publications of the Smithsonian Institution) is thirteen inches in length, and two inches in width and one inch in thickness in the centre, from whence it gradually tapers both ways, terminating in two blunt points. Found in the valley of the Shetucket river, Connecticut.

## FROM MARTIN HOAG, OF GLENVILLE, SCHENECTADY COUNTY.

A CHERT ARROWHEAD, found in the town of Glenville, Schenectady co.

## FROM JAMES L. INGOLDSBY, OF SOUTH-HARTFORD, WASHINGTON COUNTY, N.Y.

AN ARROWHEAD four inches in length, made of chalcedony. This beautiful specimen was found near an old deerlick in the town of Hartford, Washington county.

## FROM REV. JOSEPH WARREN, MISSIONARY IN INDIA.

THE LING, OR EMBLEM OF SHIVA, representing the Reproductive Energy. Bought by Rev. JOSEPH WARREN, at Allahabad, of a Hindoo, who had just completed his morning devotions before it.

*BY PURCHASE.*

**AN INDIAN RELIC**, made of precious serpentine. It is in the form of an axe with two edges, with a hole in the centre for the insertion of a handle. Length, two and a half inches; width, four and a half inches.

This beautiful relic was found at Queensbury, nine miles from Lake George.

**AN IRON GRAPESHOT**, found on the Fort William Henry ground, Lake George.

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
LABORATORY OF PHYSICAL CHEMISTRY

RESEARCH REPORT  
NO. 100

BY  
J. H. VAN DEN SCHEER  
AND  
J. H. VAN DEN SCHEER

CHICAGO, ILLINOIS  
1950



# Appendix.

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D.

## MATERIALS

BELONGING TO THE STATE,

WHICH ARE INTENDED TO BE USED IN COMPLETING  
THE PUBLICATION OF THE

*Natural History,*

RECEIVED INTO THE GEOLOGICAL ROOMS SINCE THE SEVENTH DAY OF  
JANUARY 1854.

THE [illegible] OF [illegible]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

[illegible text]

## DEPARTMENT OF PALÆONTOLOGY.

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RECEIVED, April 1, 1854, of Richard H. Pease, three thousand printed impressions, each, from Plates 29, 30, 45 and 48, for the third volume of the Palæontology.

RECEIVED, April 29, 1854, of Richard H. Pease, three thousand printed impressions each, from Plates 15, 19, 42 and 43, for the third volume of the Palæontology.

RECEIVED, August 21, 1854, of Richard H. Pease, Steel Plate No. 34 for the third volume of the Palæontology, containing forty-nine figures; and also Plate No. 38 for the same volume, containing forty-nine figures.

RECEIVED, October 4, 1854, of Richard H. Pease, three thousand printed impressions each, from Plates 97, 102, 103 and 113, for the third volume of the Palæontology. The number of figures contained on the several plates is as follows, viz :

PLATE No. 97,	Oriskany sandstone,	16 figures.
No. 102,	Oriskany sandstone,	12 f.
No. 103,	Oriskany sandstone,	9 f.
No. 113,	Oriskany sandstone,	8 f.

RECEIVED, October 16, 1854, of Richard H. Pease, three thousand printed impressions each from Plates 98 and 99, for the third volume of the Palæontology. Plate No. 98 contains twelve figures, and 99 eleven figures (Oriskany sandstone).

RECEIVED, December 28, 1854, of Richard H. Pease, three thousand printed impressions each, from the following plates, for the third volume of the Palæontology, viz :

PLATE No. 91,	Oriskany sandstone,	13 figures.
No. 92,	Oriskany sandstone,	9 f.
No. 112,	Oriskany sandstone,	14 f.
No. 115,	Oriskany sandstone,	11 f.

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TOTAL, 47 figures.

## DEPARTMENT OF AGRICULTURE.

## INSECTS.

RECEIVED, February 17, 1854, of Richard H. Pease, three thousand printed impressions each from Plates Nos. 30, 31, 32, 33, 46 and 47, for Emmons's volume on Insects, colored complete.

RECEIVED, August 21, 1854, of Richard H. Pease, the original drawings from which the figures on Plates Nos. 30, 31, 32, 33, 34, 46 and 47, for Emmons's volume on Insects, were engraved.

RECEIVED, August 22, 1854, of Prof. E. Emmons, the original drawings from which the figures on forty-three plates for the volume on Insects were engraved.

RECEIVED, October 17, 1854, of John E. Gavit, three thousand printed impressions from Plate No. 34 (steel plate containing twenty-five figures), for Emmons's volume on Insects. The impressions from said plate are all colored complete, by Richard H. Pease.

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*MATERIALS belonging to the State, which have been used in publishing the Natural History and the Annual Reports of the Regents of the University, etc., received into the Geological Rooms since the first day of January 1854.*

RECEIVED, August 26, 1854, of C. Van Benthuisen, the woodcuts from which Plates Nos. 26, 30, 32, 33, 59 and 66 of the first volume of the Palæontology were printed.

RECEIVED, November 9, 1854, of C. Van Benthuisen, twenty-one woodcuts which were used in illustrating the four volumes of the Documentary History.

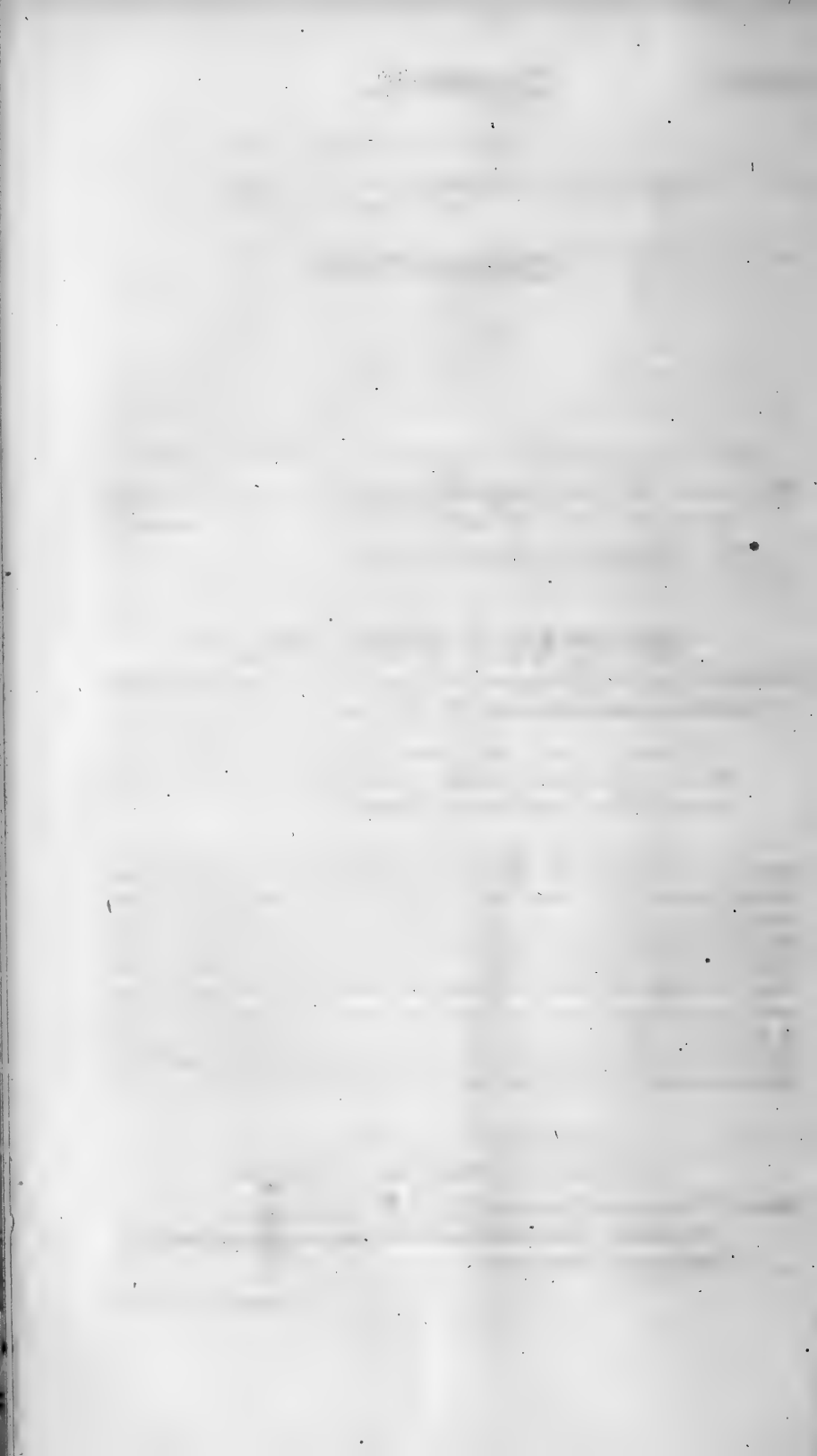
RECEIVED, October 31, 1854, from James Hall, through Dr. T. Romeyn Beck, Secretary of the Regents, the original drawings from which thirty-seven plates of the fossils figured in vol. two of the Palæontology were engraved. These drawings, with those heretofore received, constitute all the drawings of fossils for vol. two of the Palæontology, with the exception of the drawings for Plates Nos. 6, 24, 69 and 85.

Appendix.

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E

MISCELLANEOUS.



## MISCELLANEOUS.

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### FROM THE TRUSTEES OF THE NEW-YORK STATE LIBRARY.

THE ANNUAL REPORTS of the persons who were engaged in the Geological Survey of the State for the years 1837, 8, 9, 40 and 41 (complete), with an accompanying atlas of engravings.

### FROM S. R. ANDRES, OF CHAMBLY, CANADA EAST.

A sheet of the FIRST PAPER ever made from the plant *Gnaphalium polycephalum*, commonly called *Life-everlasting*.

The sheet is covered with printed certificates of manufacturers and others, and with notices and opinions of the press. The following notice is from the NEW-YORK ALBION of September 16, 1854:

"We were shown a specimen of paper a few days since, manufactured from a weed which grows spontaneously all over the Northern States, and known generally by the name of *White-top*. Though possessed of some woody fibre, it still becomes a perfect pulp under the ordinary bleaching operation. Paper-makers state that a fine article of smooth, strong, beautiful paper can be manufactured from it about ten per cent discount on paper made from rags. The adhesive qualities of the shrub are so great that no animal matter need be used in manufacturing ordinary printing paper, and it also makes a good surface without sizing. A patent has been secured to the inventor; and he proposes to erect, at his residence in Canada East, a large manufactory to be supplied wholly with this material."

### FROM BARNEY HUMPHREY, OF ALBANY.

BRAZIL NUTS, with the seed-vessel in which they grew.

The common brazil nut is the seed of the *Bertholletica excelsa* of HUMBOLDT and BONPLAND.

## FROM DR. CHARLES MARTIN, U. S. NAVY.

**TAGUA NUT** (*Phytilephas macrocarpa*) : Nut of the ivory plant, from which the vegetable ivory is manufactured.

“This extraordinary Nut, from the solidity it acquires at a certain age, is rendered an object of peculiar interest and astonishment to those who contemplate the wonderful economy of the vegetable world. The shell or outer covering of this nut is barely as thick as that of the common hazel, and is so extremely hard that no instrument will make an impression on it : it is only removed from the kernel by pressure. Bears and other animals are said to eat the nut with avidity, ere it has acquired its solid state, and derive considerable nourishment therefrom. The learned Dr. LINDLEY classes the tree among the family of Palms ; and it is common in the Mascaren islands, where it is called *Tagua-plant*. PERSOON describes the nut and its shell as being enclosed in a prickly head, or *drupe*. The kernel, in an early state, includes a limpid liquor, which becomes milky and sweet, and at length acquires the solidity of ivory. The Indians cover their cottages with the largest leaves ; and the English manufacture all kinds of fancy articles from the nut, which in color are superior to the elephant ivory. The shavings of this nut, when boiled, afford a milky liquor, and are not all gelatinous, as the shavings or dust of ivory is known to be when boiled down.”



**Appendix.**

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**F.**

**CATALOGUE**

OF THE

**FISHES INHABITING THE STATE OF NEW-YORK,**

AS CLASSIFIED AND DESCRIBED IN

**PART IV. OF THE NEW-YORK FAUNA,**

BY JAMES E. DEKAY;

WITH AN APPENDIX CONTAINING A LIST OF THE FISHES  
INHABITING THE STATE,

DISCOVERED SINCE THE PUBLICATION OF THE ZOOLOGY.

SECRET

TOP SECRET  
CONFIDENTIAL  
SECRET

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

# ZOOLOGY.

## CLASS V. FISHES.

### SUB-CLASS I. BONY FISH.

#### ORDER I. SPINE-RAYED.

##### FAMILY I. PERCIDÆ.

LATIN NAME.	ENGLISH NAME.	In the
1 PERCA FLAVESCENS, Cuv. et Val.	<i>American Yellow Perch.</i>	Cabinet.
— —	Lake George. Dr. T. Romeyn Beck.	
— —	Oswego, Oswego county. Spencer F. Baird.	
— —	Seneca lake. S. F. Baird.	
— —	Lake Sanford. S. F. Baird.	
— —	Lake Champlain (5). S. F. Baird.]	
— —	Lake Erie (2). S. F. Baird.	
— —	St. Lawrence, near Ogdensburgh. W. E. Guest.	
— —	State of New-York. Gebhard.	
— —	Onondaga lake. Gebhard.	
— —	Black lake, St. Lawrence county. Dr. F. B. Hough.	
2 PERCA SERRATO-GRANULATA, Cuv. et Val.	<i>Rough Yellow Perch.</i>	
3 PERCA GRANULATA, Cuv. et Val.	<i>Rough-headed Yellow Perch.</i>	
4 PERCA ACUTA, Cuv. et Val.	<i>Sharp-nosed Yellow Perch.</i>	
5 PERCA GRACILIS, Cuv. et Val.	<i>Slender Yellow Perch.</i>	
6 LABRAX LINEATUS, Cuv. et Val.	<i>Striped Sea Bass.</i>	..... Cabinet.
— —	New-York bay. S. F. Baird.	
7 LABRAX RUFUS, Dekay.	<i>Ruddy Bass.</i>	
8 LABRAX PALLIDUS, Dekay.	<i>Little White Bass.</i>	..... Cabinet.
— —	Vicinity of New-York. Gebhard.	
9 LABRAX NIGRICANS, Dekay.	<i>Small Black Bass.</i>	
10 LABRAX ALBIDUS, Dekay.	<i>White Lake Bass.</i>	
11 HURO NIGRICANS, Cuv. et Val.	<i>Black Huron.</i>	
12 PILEOMA SEMIFASCIATUM, Dekay.	<i>Champlain Pickering.</i>	... Cabinet.
— —	Lake Champlain. S. F. Baird.	

- 13 LUCIOPERCA AMERICANA, Cuv. et Val. *Yellow Pike-perch*. Cabinet.  
 — — Lake Champlain. S. F. Baird.  
 — — Lake Erie (2). Gebhard.  
 — — Black lake. Dr. F. B. Hough.
- 14 LUCIOPERCA GRISEA, Dekay. *Gray Pike-perch*..... Cabinet.  
 — — Lake Erie. Gebhard.
- 15 BOLEOSOMA TESSELLATUM, Dekay. *Tessellated Darter*.
- 16 SERRANUS ERYTHROGASTER, Dekay. *The Groper*.
- 17 CENTROPRISTES NIGRICANS, Cuv. et Val. *Black Sea Bass*. Cabinet.  
 — — New-York bay. S. F. Baird.
- 18 GRYSTES SALMOIDES, Cuv. et Val. *The Growler*.
- 19 CENTRARCHUS ÆNEUS, Cuv. et Val. *Freshwater Bass*..... Cabinet.  
 — — Lake Erie. S. F. Baird.  
 — — Lake Champlain. S. F. Baird.  
 — — Lake George. S. F. Baird.  
 — — Geneva, N.Y. S. F. Baird.  
 — — Black lake. Dr. F. B. Hough.  
 — — Lake George. Dr. T. Romeyn Beck.  
 — — New-York State. Gebhard.
- 20 CENTRARCHUS FASCIATUS, Dekay. *Black Freshwater Bass*. Cabinet.  
 (*Grystes fasciatus*, Agass.)  
 — — Lake George. Dr. T. Romeyn Beck.  
 — — Lake Erie. S. F. Baird.  
 — — New-York State. S. F. Baird.  
 — — Lake Champlain. S. F. Baird.  
 — — New-York State. Gebhard.  
 — — Oswegatchie river. Hough.
- 21 CENTRARCHUS OBSCURUS, Dekay. *Obscure Freshwater Bass*.
- 22 POMOTIS VULGARIS, Cuv. et Val. *Common Pondfish*..... Cabinet.  
 — — Lake George. Dr. T. Romeyn Beck.  
 — — Lake Erie. S. F. Baird.  
 — — Lake Champlain. S. F. Baird.  
 — — Lake George. S. F. Baird.  
 — — Black lake. Dr. F. B. Hough.
- 23 POMOTIS APPENDIX, Dekay. *Black-eared Pondfish*..... Cabinet.  
 — — Coxsackie, N.Y. S. F. Baird.
- 24 DULES AURIGA, Cuv. et Val. *The Coachman*.
- 25 APHREDODERUS SAYANUS, Dekay. *Spineless Perch*.
- 26 URANOSCOPIUS ANOPIOS, Cuv. et Val. *Unarmed Uranoscope*.
- 27 SPHRÆNA BOREALIS, Dekay. *Northern Barracuta*.
- 28 LEPISOMA CIRRHOSUM, Dekay. *Cirrous Lepisoma*.

## FAMILY II. MULLIDÆ.

No representative of this family has as yet been discovered in the State of New-York.

## FAMILY III. TRIGLIDÆ.

- 29 TRIGLA CUCULUS, Lin. *Red Gurnard*.
- 30 PRIONOTUS LINEATUS, Cuv. et Val. *Banded Gurnard*. . . . Cabinet.  
— — New-York harbor. Gebhard.
- 31 PRIONOTUS CAROLINUS, Cuv. et Val. *Web-fingered Gurnard*.
- 32 PRIONOTUS TRIBULUS, Cuv. et Val. *Spinous Gurnard*.
- 33 DACTYLOPTERUS VOLITANS, Cuv. et Val. *Sea-swallow*.
- 34 COTTUS VIRGINIANUS, Storer. *Common Bullhead*.
- 35 COTTUS ÆNEUS, Cuv. et Val. *Brazen Bullhead*.
- 36 COTTUS MITCHILLII, Cuv. et Val. *Smooth-browed Bullhead*.
- 37 COTTUS GRÆNLANDICUS, Cuv. et Val. *Greenland Bullhead*.
- 38 HEMITRIPTERUS AMERICANUS, Cuv. et Val. *American Sea-raven*.
- 39 SCORPÆNA PORCUS, Lin. *Small Sea-scorpion*.
- 40 SCORPÆNA BUFO, Cuv. et Val. *Spotted Sea-scorpion*.
- 41 SEBASTES NORVÆGICUS, Cuv. et Val. *Northern Sebastes*.
- 42 URANIDEA QUIESCENS, Dekay. *Little Stargazer*. . . . . Cabinet.  
(*Cottus gracilis* of Heckel.)  
— — Root's tavern, Hudson-river basin. S. F. Baird.
- 43 ASPIDOPHORUS MONOPTERYGIUS, Storer. *American Aspidophore*.
- 44 CRYPTACANTHODES MACULATUS, Storer. *Spotted Wrymouth*.
- 45 GASTEROSTEUS BIACULEATUS, Mitch. *Two-spined Stickleback*.
- 46 GASTEROSTEUS NEOBORACENSIS, Dekay. *New-York Stickleback*.
- 47 GASTEROSTEUS QUADRACUS, Mitch. *Four-spined Stickleback*.
- 48 GASTEROSTEUS OCCIDENTALIS, Dekay. *Many-spined Stickleback*.

## FAMILY IV. SCIENIDÆ.

- 49 LEIOSTOMUS OBLIQUUS, Dekay. *The Lafayette*. . . . . Cabinet.  
— — New-York bay. S. F. Baird.
- 50 OTOLITHUS REGALIS, Cuv. et Val. *The Weakfish*.
- 51 CORVINA OSCULA, Cuv. et Val. *Lake Sheepshead*. . . . . Cabinet.  
— — Lake Erie. S. F. Baird.

- 52 CORVINA ARGYROLEUCA, Dekay. *Silvery Corvina.*
- 53 CORVINA OCELLATA, Cuv. et Val. *Branded Corvina.*
- 54 CORVINA RICHARDSONII, Cuv. et Val. *The Malasheganay.*
- 55 CORVINA OXYPTERA, Dekay. *Sharp-finned Corvina.*
- 56 UMBRINA ALBURNUS, Cuv. et Val. *The Kingfish. . . . . Cabinet.*  
 — — New-York bay. S. F. Baird.
- 57 POGONIAS CHROMIS, Cuv. et Val. *Big Drum.*
- 58 POGONIAS FASCIATUS, Cuv. et Val. *Banded Drum. . . . . Cabinet.*  
 — — New-York bay (2). Gebhard.
- 59 MICROPOGON COSTATUS, Cuv. et Val. *Banded Corvino.*
- 60 HÆMULON FULVO-MACULATUM, Dekay. *Speckled Redmouth.*
- 61 HÆMULON CHRYSOPTERON, Dekay. *Yellow-finned Redmouth.*
- 62 HÆMULON FORMOSUM, Dekay. *The Squirrel-fish. . . . . Cabinet,*  
 — — Harbor of New-York. Gebhard.
- 63 PRISTIPOMA FASCIATUM, Cuv. et Val. *Banded Pristipoma.*
- 64 LOBOTES SURINAMENSIS, Cuv. et Val. *Black Tripletail.*

## FAMILY V. SPARIDÆ.

- 65 SARGUS OVIS, Storer. *The Sheepshead.*
- 66 SARGUS ARENOSUS, Dekay. *Sand Porgee.*
- 67 SARGUS RHOMBOIDES, Cuv. et Val. *Rhomboidal Porgee.*
- 68 CHRYSOPHRIS ACULEATA, Cuv. et Val. *Aculeated Gilthead.*
- 69 PAGRUS ARGYROPS, Cuv. et Val. *Big Porgee. . . . . Cabinet.*  
 — — New-York bay. S. F. Baird.

## FAMILY VI. MENIDÆ.

No representative of this family has as yet been seen on the coast of New-York.

## FAMILY VII. CHETODONTIDÆ.

- 70 EPHIPPUS FABER, Cuv. et Val. *Banded Ehippippus.*
- 71 EPHIPPUS GIGAS, Cuv. et Val. *The Moonfish.*
- 72 PIMELEPTERUS BOSCHII, Cuv. et Val. *The Razorfish.*

## FAMILY VIII. ANABASSIDÆ.

This family has no representative on the coast of New-York.

## FAMILY IX. SCOMBRIDÆ.

- 73 SCOMBER VERNALIS, Mitch. *Spring Mackerel*.
- 74 SCOMBER GREX, Mitch. *Fall Mackerel*. . . . . Cabinet.  
— — New-York harbor. Gebhard.
- 75 SCOMBER COLIAS, Cuv. et Val. *Spanish Mackerel*.
- 76 THYNNUS VULGARIS, Cuv. et Val. *Common Tunny*.
- 77 PELAMYS SARDA, Cuv. et Val. *Striped Bonito*.
- 78 CYBIUM MACULATUM, Cuv. et Val. *Spotted Cybium*.
- 79 TRICHIURUS LEPTURUS, Lin. *Silvery Hairtail*.
- 80 XIPHIAS GLADIUS, Lin. *Common Swordfish*.
- 81 NAUCRATES NOVEBORACENSIS, Cuv. et Val. *New-York Pilot-fish*.
- 82 ELACATE ATLANTICA, Cuv. et Val. *Northern Crabeater*.
- 83 LICHIA CAROLINA, Dekay. *Carolina Lichia*.
- 84 TRACHINOTUS ARGENTEUS, Cuv. et Val. *Silvery Trachinote*.
- 85 TRACHINOTUS SPINOSUS, Mitch. *Spinous Trachinote*.
- 86 PALINURUS PERCIFORMIS, Dekay. *Black Pilot*.
- 87 CARANX DEFENSOR, Dekay. *Southern Caranx*. . . . . Cabinet.  
— — New-York harbor. Gebhard.
- 88 CARANX CHRYSOS, Dekay. *Yellow Caranx, or Yellow Mackerel*. Cab.  
— — New-York harbor. Gebhard.
- 89 CARANX PUNCTATUS, Cuv. et Val. *Spotted Caranx*.
- 90 BLEPHARIS CRINITUS, Dekay. *Hair-finned Blepharis*.
- 91 ARGYREIOSUS VOMER, Lacepede. *Rostrated Argyreiose*.
- 92 ARGYREIOSUS CAPILLARIS, Dekay. *Hair-finned Argyreiose*. Cabinet.  
— — New-York harbor (2). Gebhard.
- 93 VOMER BROWNII, Cuv. et Val. *Blunt-nosed Shiner*. . . . . Cabinet.  
— — New-York harbor. Gebhard.
- 94 SERIOLA ZONATA, Cuv. et Val. *Banded Seriole*. . . . . Cabinet.  
— — Long-Island sound. Gebhard.
- 95 TEMNODON SALTATOR, Cuv. et Val. *The Bluefish* . . . . . Cabinet.  
— — New-York bay. S. F. Baird.
- 96 CORYPHENA GLOBICEPS, Dekay. *Bottle-headed Dolphin*.
- 97 LAMPUGUS PUNCTULATUS, Cuv. et Val. *Spotted Lampugus*.
- 98 RHOMBUS LONGIPINNIS, Cuv. et Val. *Long-finned Harvest-fish*.
- 99 RHOMBUS TRIACANTHUS, Dekay. *Short-finned Harvest-fish*. Cabinet.  
(*Peprilus triacanthus*, Storer.)  
— — New-York bay. S. F. Baird.

## FAMILY X. CEPOLIDÆ.

This family has no representative on the coast of New-York

## FAMILY XI. TEUTHIDÆ.

- 100 ACANTHURUS PHLEBOTOMUS, Cuv. et Val. *The Surgeon.*

## FAMILY XII. ATHERINIDÆ.

- 101 ATHERINA NOTATA, Mitch. *Dotted Silverside.*  
 102 ATHERINA MENIDIA, Lin. *Slender Silverside.*

## FAMILY XIII. MUGILIDÆ.

- 103 MUGIL LINEATUS, Mitch. *Striped Mullet.*  
 104 MUGIL ALBULA, Lin. *White Mullet.*  
 105 MUGIL PETROSUS, Cuv. et Val. *Rock Mullet.*  
 106 MUGIL PLUMIERI, Cuv et Val. *Spotted Mullet.*

## FAMILY XIV. GOBIDÆ.

- 107 BLENNIUS FUCORUM, Cuv. et Val. *Seaweed Blenny.*  
 108 PHOLIS SUB-BIFURCATUS, Storer. *Radiated Shanny.*  
 109 CHASMÔDES BOSQUIANUS, Cuv. et Val. *Six-banded Chasmodes.*  
 110 GUNNELLUS MUCRONATUS, Cuv. et Val. *American Butterfish.*  
 111 ZOARCES ANGUILLARIS, Storer. *Thick-lipped Eel-pout.*  
 112 ZOARCES FIMBRIATUS, Cuv. et Val. *Bordered Eel-pout.*  
 113 ANARRHICAS LUPUS, Lin. *The Sea-wolf.*  
 114 GOBIUS ALEPIDOTUS, Bosc. *Variiegated Goby.*

## FAMILY XV. LOPHIDÆ.

- 115 LOPHIUS AMERICANUS, Dekay. *American Angler.*  
 116 CHIRONECTES GIBBUS, Dekay. *Gibbous Mousefish.*  
 117 CHIRONECTES LÆVIGATUS, Cuv. *Smooth Mousefish.*  
 118 MALTHÆA NASUTA, Cuv. *Short-nosed Malthea.*  
 119 MALTHÆA NOTATA, Cuv. et Val. *Dotted Malthea.*  
 120 MALTHÆA VESPERTILIO, Cuv. et Val. *Bat Malthea.*  
 121 BATRACHUS TAU, Cuv. et Val. *Common Toadfish..... Cabinet.*  
     — — — — — New-York bay. S. F. Baird.  
 122 BATRACHUS CELATUS, Dekay. *Two-spined Toadfish..... Cabinet.*  
     — — — — — New-York harbor. Gebhard.



## FAMILY XVI. LABRIDÆ.

- 123 CTENOLABRUS CERULEUS, Dekay. *Common Bergall*. . . . . Cabinet.  
 — — New-York bay. S. F. Baird.
- 124 CTENOLABRUS UNINOTATUS, Dekay. *Spotted Bergall*.
- 125 TAUTOGA AMERICANA, Dekay. *New-York Tautog*. . . . . Cabinet.  
 — — New-York bay. S. F. Baird.

## SOFT-RAYED FISHES.

## ORDER II. ABDOMINAL.

## FAMILY XVII. SILURIDÆ.

- 126 GALEICHTHYS MARINUS, Dekay. *Oceanic Catfish*.
- 127 ARIUS MILBERTI, Cuv. et Val. *Milbert's Arius*.
- 128 PIMELODUS NIGRICANS, Cuv. et Val. *Great Lake Catfish*.
- 129 PIMELODUS CATUS, Cuv. et Val. *Common Catfish*. . . . . Cabinet.  
 — — Lake George. Dr. T. Romeyn Beck.  
 — — Summerville, St. Lawrence co. Dr. F. B. Hough.
- 130 PIMELODUS PULLUS, Dekay. *Brown Catfish*. . . . . Cabinet.  
 — — Oswegatchie river. Dr. F. B. Hough.
- 131 PIMELODUS ATRARIUS, Dekay. *Black Catfish*.

## FAMILY XVIII. CYPRINIDÆ.

- 132 CYPRINUS CARPIO, Lin. *Common Carp* (introduced).
- 133 CYPRINUS AURATUS, Lin. *Golden Carp* (introduced).
- 134 ABRAMIS VERSICOLOR, Dekay. *Variegated Bream*.
- 135 LABEO ELEGANS, Dekay. *New-York Chubsucker*.
- 136 LABEO OBLONGUS, Dekay. *Brilliant Chubsucker*.  
 (*L. elongatus*, Dekay, Appendix D.)
- 137 LABEO CYPRINUS, Dekay. *Long-finned Chubsucker*. . . . . Cabinet.  
 (*Sclerognathus cyprinus*, Val.)  
 — — Lake Erie. S. F. Baird.
- 138 LABEO GIBBOSUS, Dekay. *Gibbous Chubsucker*. . . . . Cabinet.  
 (*Catostomus gibbosus*, Lesu.)  
 — — Lake Erie, and Albany. S. F. Baird.
- 139 LABEO ESOPUS, Dekay. *Round-backed Chubsucker*.
- 140 CATOSTOMUS COMMUNIS, Lesu. *Common Sucker*. . . . . Cabinet.  
 — — Otsego lake. S. F. Baird.

- 141 CATOSTOMUS ONEIDA, Dekay. *Oneida Sucker*.
- 142 CATOSTOMUS TUBERCULATUS, Lesu. *Horned Sucker*.
- 143 CATOSTOMUS PALLIDUS, Dekay. *Pale Sucker*. . . . . Cabinet.  
 — — Coxsackie, Greene county. S. F. Baird.  
 — — Trout brook emptying into Lake George. S. F. Baird.  
 — — Four-mile creek, Oswego. S. F. Baird.  
 — — Root's tavern, Hudson river basin. S. F. Baird.
- 144 CATOSTOMUS AUREOLUS, Lesu. *Mullet Sucker*. . . . . Cabinet.  
 — — Lake Erie. S. F. Baird,  
 — — Oswegatchie river. Dr. F. B. Hough.
- 145 CATOSTOMUS NIGRICANS, Lesu. *Black Sucker*.
- 146 CATOSTOMUS MACROLEPIDOTUS, Lesu. *Large-scaled Sucker*.
- 147 STILBE CHRYSOLEUCAS, Dekay. *New-York Shiner*. . . . . Cabinet.  
 (*Leuciscus americanus*, Storer.)  
 — — Cayuga lake. W. Hopkins.  
 — — Lake Champlain. S. F. Baird.
- 148 LEUCISCUS ATRONASUS, Storer. *Black-nosed Dace*. . . . . Cabinet.  
 — — Rossie, St. Lawrence county. Dr. F. B. Hough.
- 149 LEUCISCUS HUDSONICUS, Dekay. *The Spawn-eater*. . . . . Cabinet.  
 — — Geneva, New-York. S. F. Baird.
- 150 LEUCISCUS CORNUTUS, Dekay. *The Redfin*. . . . . Cabinet.  
 — — Lake Champlain. S. F. Baird.  
 — — Four-mile creek, Oswego. S. F. Baird.
- 151 LEUCISCUS PULCHELLUS, Storer. *Roach Dace*. . . . . Cabinet.  
 — — St. Lawrence below Ogdensburgh. S. F. Baird.
- 152 LEUCISCUS NITIDUS, Dekay. *Shining Dace*. . . . . Cabinet.  
 — — Lake Champlain. S. F. Baird.  
 — — Oswegatchie river. Dr. F. B. Hough.
- 153 LEUCISCUS ATROMACULATUS, Dekay. *Black-headed Dace*. . . . . Cabinet.  
 — — Lake George. Dr. T. Romeyn Beck.
- 154 LEUCISCUS CHRYSOPTERUS, Dekay. *Bay Shiner*.
- 155 LEUCISCUS ARGENTEUS, Storer. *Silvery Dace*.
- 156 LEUCISCUS VITTATUS, Dekay. *Banded Dace*.
- 157 LEUCISCUS? CORPORALIS, Dekay. *The Corporaalen*.
- 158 LEUCISCUS PYGMÆUS, Dekay. *Pigmy Dace*. . . . . Cabinet.  
 (*Melanura pygmæa*, Agass. ms.)  
 — — Rockland county. J. G. Bell.
- 159 LEBIAS OVINUS, Dekay. *Sheepshead Lebias*.

- 160 FUNDULUS FASCIATUS, Dekay. *Striped Killifish*. . . . . Cabinet.  
 — — Saltwater creeks about New-York. Gebhard.
- 161 FUNDULUS VIRIDESCENS, Dekay. *Big Killifish*. . . . . Cabinet.  
 — — Saltwater creeks about New-York. Gebhard.
- 162 FUNDULUS ZEBRA, Dekay. *Barred Killifish*. . . . . Cabinet.  
 — — Saltwater creeks about New-York. Gebhard.
- 163 HYDRARGIRA DIAPHANA, Lesu. *Transparent Minnow*.
- 164 HYDRARGIRA MULTIFASCIATA, Lesu. *Barred Minnow*.
- 165 HYDRARGIRA ATRICAUDA, Dekay. *Champlain Minnow*. . . Cabinet.  
 (Melanura fusca, Agass. ms.)  
 — — Burlington, Lake Champlain. Rev. Z. Thompson.

## FAMILY XIX. ESOCIDÆ.

- 166 ESOX ESTOR, Cuvier. *The Muskellunge*.
- 167 ESOX RETICULATUS, Lesu. *Common Pickerel*. . . . . Cabinet.  
 — — Black lake (2). Dr. F. B. Hough.
- 168 ESOX FASCIATUS, Dekay. *Varied Pickerel*.
- 169 ESOX TREDECIM-RADIATUS, Mitch. *Federation Pike*.
- 170 BELONE TRUNCATA, Lesu. *Banded Garfish*. . . . . Cabinet.  
 — — Hudson river near Albany. Gebhard.
- 171 SCOMBERESOX STORERI, Dekay. *The Billfish*.
- 172 EXOCETUS NOVEBORACENSIS, Dekay. *New-York Flyingfish*.
- 173 EXOCETUS COMATUS, Mitch. *Single-bearded Flyingfish*.
- 174 EXOCETUS FURCATUS, Mitch. *Double-bearded Flyingfish*.

## FAMILY XX. FISTULARIDÆ.

- 175 FISTULARIA SERRATA, Storer. *American Pipefish*.
- 176 FISTULARIA TABACARIA, Dekay. *Spotted Pipefish*.

## FAMILY XXI. SALMONIDÆ.

- 177 SALMO FONTINALIS, Mitch. *Brook Trout*. . . . . Cabinet.  
 — — Stream emptying into Lake George(2). Dr. T.R. Beck.  
 — — Madrid, New-York. E. A. Dayton.  
 — — East-Canada creek, N.Y.(2). Gebhard.  
 — — Lakes in Hamilton county, N.Y.(2). Gebhard.
- 178 SALMO ERYTHROGASTER, Dekay. *Red-bellied Trout*.
- 179 SALMO CONFINIS, Dekay. *Lake Trout*.
- 180 SALMO AMETHYSTUS, Mitch. *Mackinaw Salmon*.

- 181 SALMO SALAR, Lin. *Common Sea Salmon*..... Cabinet.  
 — — Lake Ontario. Gebhard.
- 182 OSMERUS VIRIDESCENS, Lesu. *American Smelt*. .... Cabinet.  
 — — New-York bay. S. F. Baird.
- 183 BAIONE FONTINALIS, Dekay. *Spotted Troutlet*.
- 184 SCOPELUS HUMBOLDTI? Cuvier. *The Argentine*.
- 185 COREGONUS ALBUS, Lesu. *The Whitefish*. .... Cabinet.  
 — — Lake George(2). Dr. T. Romeyn Beck.  
 — — Lake Erie. S. F. Baird.
- 186 COREGONUS CLUPEIFORMIS, Dekay. *Common Shad-salmon*.
- 187 COREGONUS OTSEGO, Dekay. *Otsego Shad-salmon*. .... Cabinet.  
 — — Otsego lake. S. F. Baird.

## FAMILY XXII. CLUPIDÆ.

- 188 CLUPEA ELONGATA, Lesu. *Common American Herring*.
- 189 CLUPEA FASCIATA, Lesu. *Striped Herring*.
- 190 CLUPEA VIRESCENS, Dekay. *Green Herring*.
- 191 CLUPEA PARVULA, Mitch. *Little Herring*.
- 192 CLUPEA MINIMA, Peck. *The Brit*.
- 193 CLUPEA VITTATA, Mitch. *Satin-striped Herring*.
- 194 CLUPEA CÆRULEA, Mitch. *Blue Herring*.
- 195 ALOSA PRÆSTABILIS, Dekay. *American Shad*..... Cabinet.  
 — — Hudson river. Gebhard.
- 196 ALOSA TYRANNUS, Dekay. *American Alewife*.
- 197 ALOSA MENHADEN, Storer. *The Mossbonker*.
- 198 ALOSA MATTOWACCA, Dekay. *Autumnal Herring*.
- 199 ALOSA TERES, Dekay. *Slender Herring*.
- 200 ALOSA SADINA, Dekay. *Spotted Shadine*.
- 201 CHATCESSUS SIGNIFER, Dekay. *Spotted Thread-herring*.... Cabinet.  
 — — New-York harbor. Gebhard.
- 202 HYODON TERGISUS, Lesu. *River Mooneye*. .... Cabinet.  
 — — Lake Erie. S. F. Baird.  
 — — Black lake. Dr. F. B. Hough.
- 203 HYODON CLODALIS\*, Lesu. *Lake Mooneye*.

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\* KIRTLAND considers the *H. clodalis* as the female of *H. tergisus* (Boston Journal of Natural History, Vol. v. pa. 338, pl. 28. f. 1, 2).

- 204 ELOPS SAURUS, Lin. *The Saury*. . . . . Cabinet.  
 — — New-York harbor. Gebhard.  
 205 AMIA OCCIDENTALIS, Dekay. *Western Mudfish*.

## FAMILY XXIII. SAURIDÆ.

- 206 LEPIDOSTEUS BISON, Dekay. *Buffalo Bony-pike*. . . . . Cabinet.  
 — — Lake Champlain. Gebhard.  
 — — Lake Ontario. Gebhard.  
 207 LEPIDOSTEUS PLATYRHINCUS, Dekay. *Flat-nosed Bony-pike*.

## ORDER III. JUGULAR.

## FAMILY XXIV. GADIDÆ.

- 208 MORRHUA AMERICANA, Storer. *American Cod*.  
 209 MORRHUA MINUTA, Yarrel. *Power Cod*.  
 210 MORRHUA PRUINOSA, Dekay. *Tom Cod*.  
 211 MORRHUA ÆGLEFINUS, Cuvier. *The Haddock*.  
 212 MERLUCIUS ALBIDUS, Dekay. *American Hake*.  
 213 LOTA INORNATA, Dekay. *Plain Burbot*.  
 214 LOTA MACULOSA, Rich. *Spotted Burbot*. . . . . Cabinet.  
 — — Lake Erie. Dr. Kirtland.  
 — —? Madrid, New-York. E. A. Dayton.  
 215 LOTA COMPRESSA, Storer. *Compressed Burbot*.  
 216 MERLANGUS PURPUREUS, Storer. *New-York Pollack*.  
 217 MERLANGUS CARBONARIUS, Storer. *The Coalfish*.  
 218 MERLANGUS LEPTOCEPHALUS, Dekay. *Green Pollack*.  
 219 BROSMIUS VULGARIS? Storer. *The Cusk*.  
 220 PHYCIS AMERICANUS, Storer. *American Codling*.  
 221 PHYCIS PUNCTATUS, Dekay. *Spotted Codling*.

## FAMILY XXV. PLANIDÆ.

- 222 HIPPOGLOSSUS VULGARIS, Cuvier. *The Halibut*.  
 223 PLATESSA PLANA, Storer. *New-York Flatfish*. . . . . Cabinet.  
 — — New-York bay. S. F. Baird.  
 — — New-York bay. Gebhard.  
 224 PLATESSA PUSILLA, Dekay. *Pigmy Flatfish*.  
 225 PLATESSA FERRUGINEA, Storer. *Rusty Flatfish*.

- 226 PLATESSA DENTATA, Storer. *Toothed Flatfish.*
- 227 PLATESSA OBLONGA, Mitch. *Oblong Flounder.* . . . . . Cabinet.  
 — — New-York bay. S. F. Baird.
- 228 PLATESSA OCELLARIS, Dekay. *Long-toothed Flounder.* . . . . Cabinet.  
 — — Coast of New-York. Gebhard.
- 229 PLEURONECTES MACULATUS, Mitch. *Spotted Turbot.* . . . . Cabinet.  
 (*Rhombus maculatus*, Gd. ms.)  
 — — New-York bay. S. F. Baird.  
 — — New-York bay(2). Gebhard.
- 230 ACHIRUS MOLLIS, Cuvier. *New-York Sole.* . . . . . Cabinet.  
 — — New-York bay(2). Gebhard.  
 — — New-York bay. S. F. Baird.  
 — — Hudson river near Albany. Gebhard.

## FAMILY XXVI. CYCLOPTERIDÆ.

- 231 LUMPUS ANGLORUM, Willughby. *The Lumpfish.*

## FAMILY XXVII. ECHENEIDÆ.

- 232 ECHENEIS ALBICAUDA, Mitch. *White-tailed Remora.* . . . . Cabinet.  
 — — Hudson river at Singing. Gebhard.
- 233 ECHENEIS NAUCRATES, Lin. *Indian Remora.*
- 234 ECHENEIS REMORA, Lin. *Common Remora.*

## ORDER IV. APODAL.

## FAMILY XXVIII. ANGUILLIDÆ.

- 235 ANGUILLA TENUIROSTRIS, Dekay. *Common New-York Eel.* Cabinet.  
 — — Lake George. Rev. J. N. Campbell.  
 — — Oswegatchie river. Dr. F. B. Hough.  
 — — Oneida county. Gebhard.
- 236 ANGUILLA ROSTRATA? Dekay. *Beaked Eel.* . . . . . Cabinet.  
 — — Madrid, New-York. E. A. Dayton.
- 237 ANGUILLA OCEANICA, Mitch. *Sea Eel.*
- 238 ANGUILLA MACROCEPHALA, Dekay. *Bullhead Eel.*
- 239 CONGER OCCIDENTALIS, Dekay. *American Conger.*
- 240 OPHIDIUM MARGINATUM, Dekay. *New-York Ophidium.* . . . Cabinet.  
 — — New-York harbor. Gebhard.
- 241 AMMODYTES AMERICANUS, Dekay. *American Sandluce.*
- 242 AMMODYTES VITTATUS, Dekay. *Banded Sandluce.*

## ORDER V. LOPHOBRANCHII.

## FAMILY XXIX. SYNGNATHIDÆ.

- 243 SYNGNATHUS FASCIATUS, Dekay. *Banded Pipefish.*  
 244 SYNGNATHUS VIRIDESCENS, Dekay. *Green Pipefish.*  
 245 HIPPOCAMPUS HUDSONIUS, Dekay. *Hudson-river Seahorse.* .Cabinet.  
 — — Hudson river near New-York(4). Gebhard.

## ORDER VI. PLECTOGNATHI.

## FAMILY XXX. GYMNODONTIDÆ.

- 246 DIODON MACULATO-STRIATUS, Mitch. *Spot-striped Balloon-fish.*  
 247 DIODON FULIGINOSUS, Dekay. *Unspotted Balloon-fish.*  
 248 DIODON VERRUCOSUS, Dekay. *Warty Balloon-fish.*  
 249 DIODON PILOSUS, Mitch. *Hairy Balloon-fish.*  
 250 TETRAODON TURGIDUS, Storer. *Common Puffer.*  
 251 TETRAODON CURVUS, Mitch. *Curved Puffer.* . . . . . Cabinet.  
 — — Hudson river near Singing. Gebhard.  
 252 TETRAODON LEVIGATUS, Lin. *Lineated Puffer.*  
 253 ACANTHOSOMA CARINATUM, Dekay. *Small Globefish.*  
 254 ORTHAGORISCUS MOLA, Bloch. *Short Headfish.*

## FAMILY XXXI. BALISTIDÆ.

- 255 MONOCANTHUS AURANTIACUS, Dekay. *Orange Filefish.*  
 256 MONOCANTHUS BROACUS, Dekay. *Long-finned Filefish.*  
 257 MONOCANTHUS MASSACHUSETTENSIS, Storer. *Massachusetts Filefish.*  
 258 MONOCANTHUS SETIFER, Dekay. *Thread Filefish.* . . . . . Cabinet.  
 — — Harbor of New-York(2). Gebhard.  
 259 ALUTERES CUSPICAUDA, Dekay. *Long-tailed Unicorn-fish.*  
 260 BALISTES FULIGINOSUS, Dekay. *Dusky Balistes.*

## FAMILY XXXII. OSTRACIONIDÆ.

- 261 LACTOPHRYS CAMELINUS, Dekay. *Dromedary Trunkfish.*  
 262 LACTOPHRYS YALEI, Dekay. *Yale's Trunkfish.*

## SUB-CLASS II. CARTILAGINOUS FISHES.

## ORDER I. ELEUTHEROPOMI.

## FAMILY I. STURIONIDÆ.

- 263 ACIPENSER RUBICUNDUS, Lesu. *Lake Sturgeon.*  
 264 ACIPENSER BREVIROSTRIS, Lesu. *Short-nosed Sturgeon.*  
 265 ACIPENSER OXYRHINCUS, Mitch. *Sharp-nosed Sturgeon.* .. Cabinet.  
 — — Lake Ontario. Gebhard.

## ORDER II. PLAGIOSTOMI.

## FAMILY II. SQUALIDÆ.

- 266 CARCHARIAS VULPES, Cuvier. *Thresher Shark.*  
 267 CARCHARIAS CERULEUS, Dekay. *Small Blue Shark.*  
 268 CARCHARIAS OBSCURUS, Dekay. *Dusky Shark.*  
 269 CARCHARIAS LITTORALIS, Dekay. *Ground Shark.*  
 270 LAMNA PUNCTATA, Storer. *Mackerel Porbeagle.*  
 271 LAMNA CAUDATA, Dekay. *Long-tailed Porbeagle.*  
 272 MUSTELUS CANIS, Dekay. *American Houndfish.*..... Cabinet.  
 — — Coast of New-York. Gebhard.  
 273 SELACHUS MAXIMUS, Dekay. *Basking Shark.*  
 274 SPINAX ACANTHIAS? Storer. *Spinous Dogfish.*  
 275 SCYMNUS BREVIPINNA, Dekay. *The Nurse.*  
 276 ZYGÆNA MALLEUS, Val. *Hammerhead Shark.*  
 277 SQUATINA DUMERILI, Lesu. *American Angel-fish.*  
 278 PRISTIS ANTIQUORUM, Latham (Linn. Trans.). *Common Sawfish.*

## FAMILY III. RAIIDÆ.

- 279 RAIÀ DIAPHANES, Mitch. *Clear-nosed Ray.*  
 280 RAIÀ AMERICANA, Dekay. *Prickly Ray.*..... Cabinet.  
 — — Coast of New-York. Gebhard.  
 281 RAIÀ OCELLATA, Mitch. *Spotted Ray.*  
 282 PASTINACA MACLURA, Dekay. *Broad Sting-ray.*  
 283 RHINOPTERA QUADRILLOBA, Dekay. *Cownose Ray.*



- 284 *RAIA ERINACEUS*, Mitch. *Hedgehog Ray*.  
 285 *PASTINACA HASTATA*, Dekay. *Whip Sting-ray*.  
 286 *RAIA LÆVIS*, Mitch. *Smooth Skate*.  
 287 *CEPHALOPTERA VAMPIRUS*, Mitch. *The Sea-devil*.

## ORDER III. CYCLOSTOMI.

## FAMILY IV. PETROMYZONIDÆ.

- 288 *PETROMYZON AMERICANUS*, Lesu. *American Sea-lamprey*. Cabinet.  
 — — Hudson river near Albany. Gebhard.  
 289 *PETROMYZON NIGRICANS*, Lesu. *Bluish Sea-lamprey*.  
 290 *PETROMYZON APPENDIX*, Dekay. *Small Lamprey*.  
 291 *AMMOCETES BICOLOR*, Lesu. *Colored Mud-lamprey*.  
 292 *AMMOCETES UNICOLOR*, Dekay. *Plain Mud-lamprey*.

## APPENDIX.

FISHES DISCOVERED IN THE STATE SINCE THE PUBLICATION  
OF THE ZOOLOGY

- 293 *PERCOPSIS PELLUCIDA*, Thomps. . . . . Cabinet.  
 — — Elizabethtown, Essex county. S. F. Baird.  
 294 *LABRAX MULTILINEATUS*, Cuv. et Val. *White Bass of Lake Erie*. Cab.  
 — — Lake Erie. S. F. Baird.  
 295 *LABRAX NOTATUS*, Rich. *Canadian Bass, or Barfish*.  
 296 *LUCIOPERCA CANADENSIS*, Griffith's Cuvier. *Green Pickering*. Cabinet.  
 — — Lake Erie. S. F. Baird.  
 297 *SERRANUS MORIO*, Cuv. et Val. Called "Nègre" at St. Domingo.  
 298 *GRYSTES* — ? Baird. . . . . Cabinet.  
 — — Lake Erie. S. F. Baird.  
 299 *CENTRARCHUS HEXACANTHUS*, Val. *Rockfish, or Grass Bass*. Cabinet.  
 — — Lake Erie. S. F. Baird.

- 300 POMOTIS MEGALOTIS? Rafin..... Cabinet.  
 — — Lake George. S. F. Baird.
- 301 POMOTIS SOLIS, Val. *Solitary Sunfish.*
- 302 COTTUS WILSONII? Girard. *Wilson's Cottus*..... Cabinet.  
 — — From a small tributary of the Oswego creek, town of  
 Little-Genesee, Allegany county. R. P. Stevens.
- 303 COTTUS GOBIOIDES, Girard. *Large-mouthed Cottus.*
- 304 COTTUS BOLEOIDES, Girard. *Slender Cottus.*
- 305 COTTUS FORMOSUS, Girard. *Small-headed Cottus.*
- 306 COTTUS ———. .... Cabinet.  
 — — From a small tributary of the Oswego creek, town of  
 Little-Genesee, Allegany county. R. P. Stevens.
- 307 TRIGLOPSIS THOMPSONII, Girard. *Thompson's Triglopsis*... Cabinet.  
 — — Lake Ontario. S. F. Baird.
- 308 GASTEROSTEUS INCONSTANS, Kirt. *Stickleback*. .... Cabinet.  
 — — Oswego. S. F. Baird.
- 309 UMBRINA COROIDES, Cuv. et Val. *Southern Kingfish.*
- 310 SERIOLA COSMOPOLITA, Cuv. et Val. *Cosmopolite Seriole.*
- 311 CORYPHÆNA SUEURII, Cuv. *Sueur's Dolphin.*
- 312 BATRACHUS VARIEGATUS, Lesu. *Variiegated Toadfish.*
- 313 PIMELODUS CÆRULESCENS, Rafin. *Blue, Brown or Silvery Catfish.*
- 314 PIMELODUS CUPREUS, Rafin. *Yellow Catfish.*
- 315 PIMELODUS XANTHOCEPHALUS, Raf. *The "Small Black Bullhead"*  
 of the northern streams and lakes.
- 316 PIMELODUS GRACILIS, Hough. *Common Catfish*..... Cabinet.  
 This species occurs in the Oswegatchie, Indian, and other rivers  
 tributary to the St. Lawrence, and in several of the smaller lakes of  
 St. Lawrence and Jefferson counties. Dr. F. B. Hough.
- 317 NOTURUS FLAVUS, Raf. *Yellow Backtail, Young Catfish.*
- 318 GOBIO CATARACTÆ, Val. *Niagara Gudgeon.*
- 319 ABRAMIS SMITHII, Rich. *Smith's Bream.*
- 320 CATOSTOMUS MELANOPS, Raf. *Spotted Sucker*. .... Cabinet.  
 — — Lake Erie. S. F. Baird.
- 321 CATOSTOMUS COMMUNIS? Lesu. *Common Sucker?*..... Cabinet.  
 — — Lake Erie. S. F. Baird.
- 322 CATOSTOMUS FLOREALIS (new spec.), Baird. *Sucker*. .... Cabinet.  
 — — Elizabethtown, Essex county. S. F. Baird.

- 323 CATOSTOMUS TERES, Lesu. *Freshwater Sucker*. . . . . Cabinet.  
 — — Lake Champlain. S. F. Baird.
- 324 CATOSTOMUS BOSTONIENSIS, Lesu. *Boston Sucker*.
- 325 CATOSTOMUS CARPIO, Val. *Carp Sucker*.
- 326 LEUCISCUS ROSACEUS (new spec.), Baird. *Rosaceous Shiner*. Cabinet.  
 — — Root's tavern, Hudson-river basin. S. F. Baird.
- 327 LEUCISCUS PALEI (new spec.), Baird. . . . . Cabinet.  
 — — Elizabethtown, Essex county. S. F. Baird.
- 328 LEUCISCUS PLAGYRUS, Raf. *Common Shiner of Ohio*.
- 329 LEUCISCUS STOREIANUS, Kirt. *Storer's Leuciscus*.
- 330 LEUCISCUS DORSALIS, Raf. *Common Chub*.
- 331 LEUCISCUS ELONGATUS, Kirt. *Red-bellied Shiner of the Lake*.
- 332 LEUCISCUS DISSIMILIS, Kirt. *Spotted Shiner*.
- 333 EXOGLOSSUM LESUEURIANUM, Raf. *Lesueur's Chub*. . . . . Cabinet.  
 (E. maxillingua, Agass.)  
 — — Coxsackie, Greene county. S. F. Baird.  
 — — Root's tavern, Hudson river. S. F. Baird.  
 — — Geneva, Ontario county. S. F. Baird.  
 — — Sacket's-harbor, Lake Ontario. S. F. Baird.
- 334 EXOGLOSSUM ANNULATUM, Raf. *Black Chub*.
- 335 EXOGLOSSUM NIGRESCENS, Raf. *Black Chub*.
- 336 MELANURA LINEATA, Agass. ms. *Striped Dace*. . . . . Cabinet.  
 — — Oswego. S. F. Baird
- 337 ESOX NIGER, Lesu. *Black Pike*.  
 Dr. DEKAY thinks this may be the young of *E. reticulatus*.
- 338 SALMO CANADENSIS, Griffith's Cuvier. *Canadian Salmon*.
- 339 CHATGESSUS ELLIPTICUS, Kirt. *Hickory Shad*. . . . . Cabinet.  
 — — Lake Erie. S. F. Baird.
- 340 AMIA CANINA, Val. *Mudfish*. . . . . Cabinet.  
 — — Lake Erie. S. F. Baird.
- 341 LEPIDOSTEUS HURONENSIS, Rich. *Northern Mailed-fish*. . . . Cabinet.  
 — — Lake Erie. S. F. Baird.
- 342 PHYCIS TENUIS, Dekay. *Slender Cod*.
- 343 PLATESSA GLABRA, Storer. *Elliptical Flatfish*.
- 344 ALUTERES ANGUSTICAUDA, Dekay. *Narrow-tailed Filefish*.
- 345 CARCHARIAS GRISEUS, Ayres. *Gray Shark*.

- 346 MYLIOBATIS FREMINVILLII, Lesu. *Fremenville's Ray*.  
 347 MYLIOBATIS SAYI, Lesu. *Say's Ray*.  
 348 MYLIOBATIS ACUTA, Ayres. *Slender Ray*.  
 349 TORPEDO OCCIDENTALIS, Storer. *Numbfish or Crampfish*.  
 350 PETROMYZON ARGENTATUS, Kirt. *Silvery Lamprey*.....Cabinet.  
 ————— Lake Erie. S. F. Baird.  
 351 CARPIOIDES THOMPSONI, Agass.  
 352 HYBORHYNCUS NOTATUS, Agass.  
 353 MOXOSTOMA ANISURUS, Agass. (*Catostomus anisurus*, Raf.)  
 354 PTYCHOSTOMUS DUQUESNII, Agass. (*Catostomus duquesnii*, Lesu.)  
 355 CATOSTOMUS FORSTERIANUS, Agass.

Making a total of : Families ..... 32 ;  
 Genera ..... 156 ;  
 Species ..... 355.

Of the species above enumerated, there are one hundred and one in the State Cabinet, as will be seen from the preceding catalogue.

ERRATUM. No. 158, for *Melanura pygmaea*, read *M. annulata*.

---

Since the preceding report was printed, we have received the January and March numbers of the American Journal of Science and Arts. They contain a valuable paper by Prof. AGASSIZ, entitled a "Synopsis of the Ichthyological Fauna of the Pacific Slope of North America, chiefly from the collections made by the United States Exploring Expedition under the command of Captain C. WILKES, with recent additions and comparisons with eastern types;" a full notice of which will be given in the next report.

The following is a list of the New-York fishes referred to in the Synopsis, with the names given by Prof. AGASSIZ and the synonyms of other naturalists.

NAMES GIVEN BY PROF. AGASSIZ.	SYNONYMS.
CARPIOIDES THOMPSONI .....	CATOSTOMUS CYPRINUS, Thompson.
	{ LABEO GIBBOSUS,
	{ LABEO ELEGANS,
	{ LABEO ESOPUS,
MOXOSTOMA OBLONGUS* .....	{ LABEO OBLONGUS,
	{ CATOSTOMUS TUBERCULATUS,
	{ CATOSTOMUS VITTATUS, Dekay's New York Fauna.
MOXOSTOMA ANISURUS .....	CATOSTOMUS ANISURUS, Raf.
PTYCHOSTOMUS AUREOLUS .....	CATOSTOMUS AUREOLUS, Les.
PTYCHOSTOMUS DUQUESNII .....	CATOSTOMUS DUQUESNII, Les.
PTYCHOSTOMUS MACROLEPIDOTUS ..	CATOSTOMUS MACROLEPIDOTUS, Les.
HYLOMYZON NIGRICANS .....	CATOSTOMUS NIGRICANS, Les.
CATOSTOMUS FORSTERIANUS (new sp.).	
EXOGLOSSUM MAXILLINGUA .....	CATOSTOMUS MAXILLINGUA, Les.
	{ LEUCISCUS PYGMEUS, Dekay.
MELANURA ANNULATA* .....	{ HYDRARGYRA ATRICAUDA, Dekay.
	{ HYDRARGYRA FUSCA, Thomp.
	{ FUNDULUS FUSCUS, Storer.
HYBORHYNCHUS NOTATUS .....	MINNILUS NOTATUS, Raf.
LUPILUS CHRYSOLEUCAS .....	STILBE CHRYSOLEUCAS, Dekay.

\* In these instances, Prof. AGASSIZ has ascertained that different forms of the same have been mistaken for different species.

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#### ERRATUM IN LAST YEAR'S REPORT.

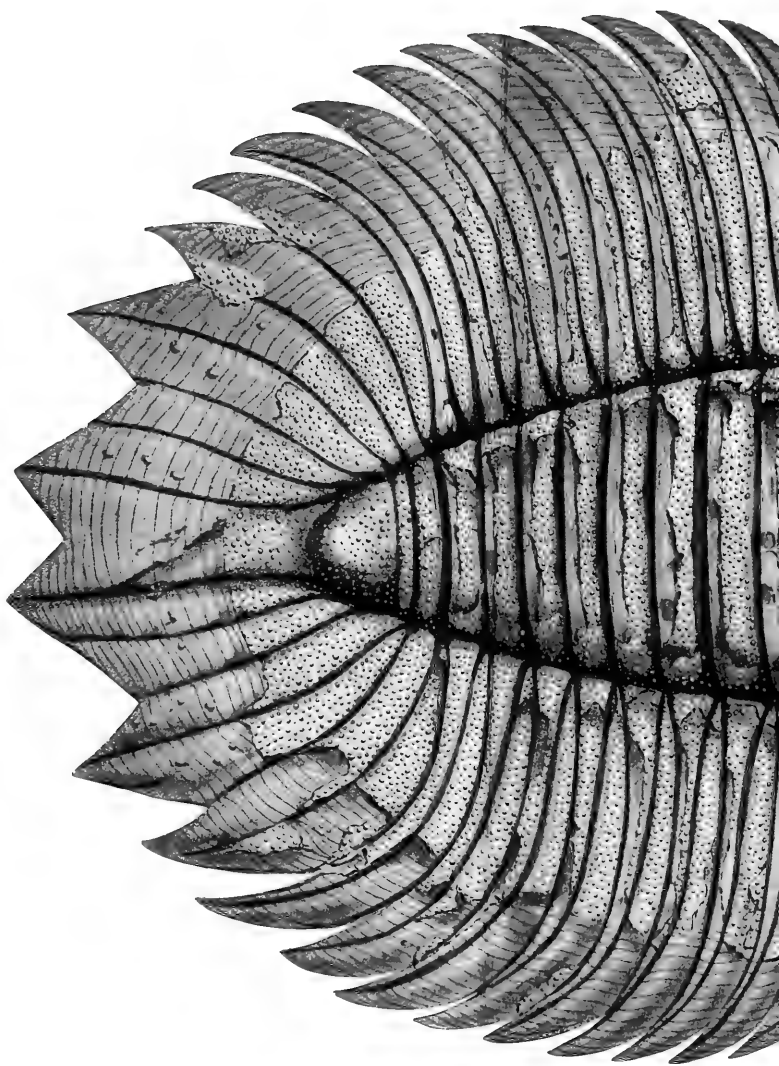
Page 125. For "4, Geology, *fourth* district (Emmons)," read *second* district.

PLATE 1



1880

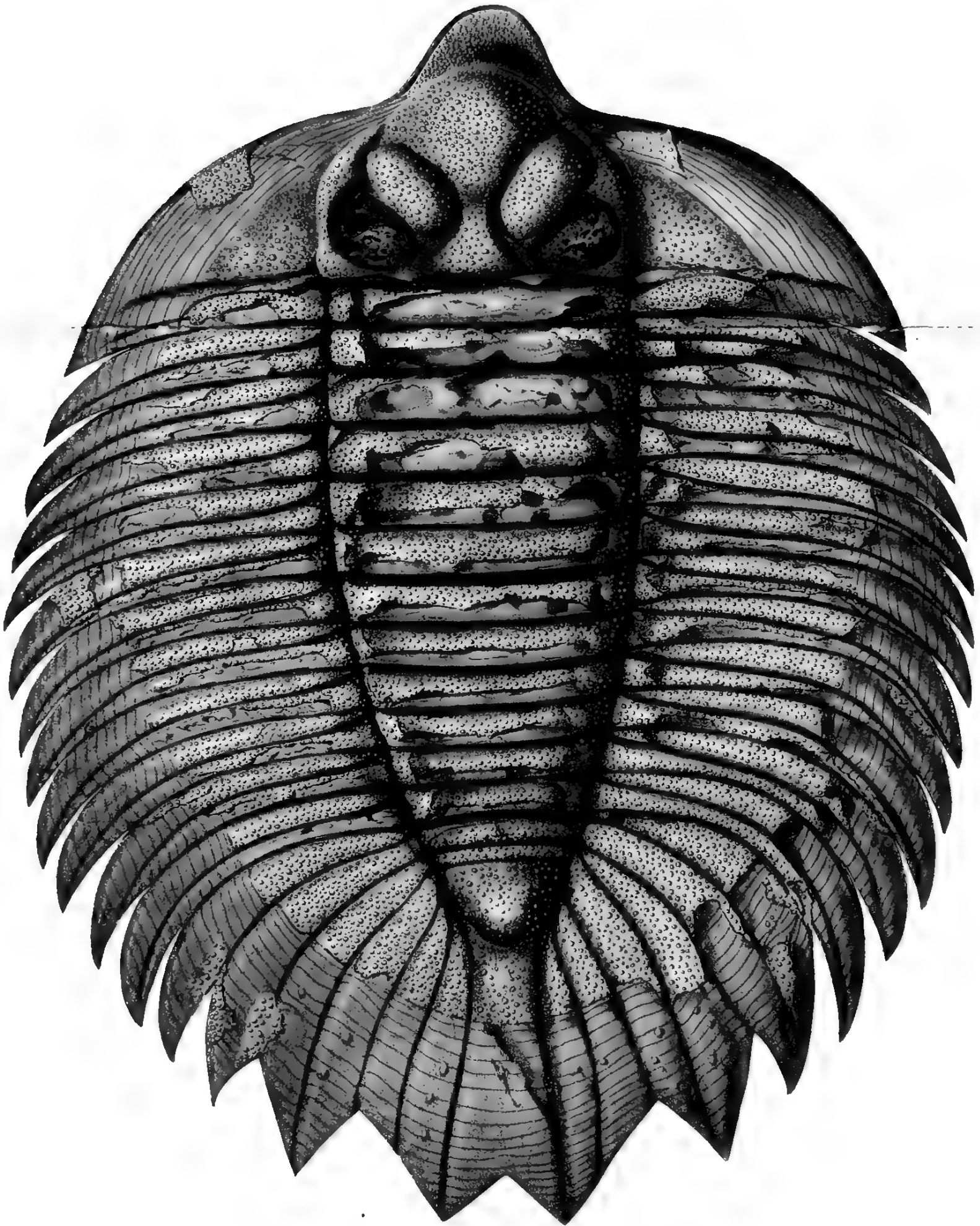
PLATE 1







(DORSAL VIEW)





*S. W. Zane*

NINTH ANNUAL REPORT

OF THE

REGENTS OF THE UNIVERSITY

OF THE

State of New-York,

ON THE

CONDITION OF THE STATE CABINET

OF

NATURAL HISTORY,

AND THE

HISTORICAL AND ANTIQUARIAN COLLECTION

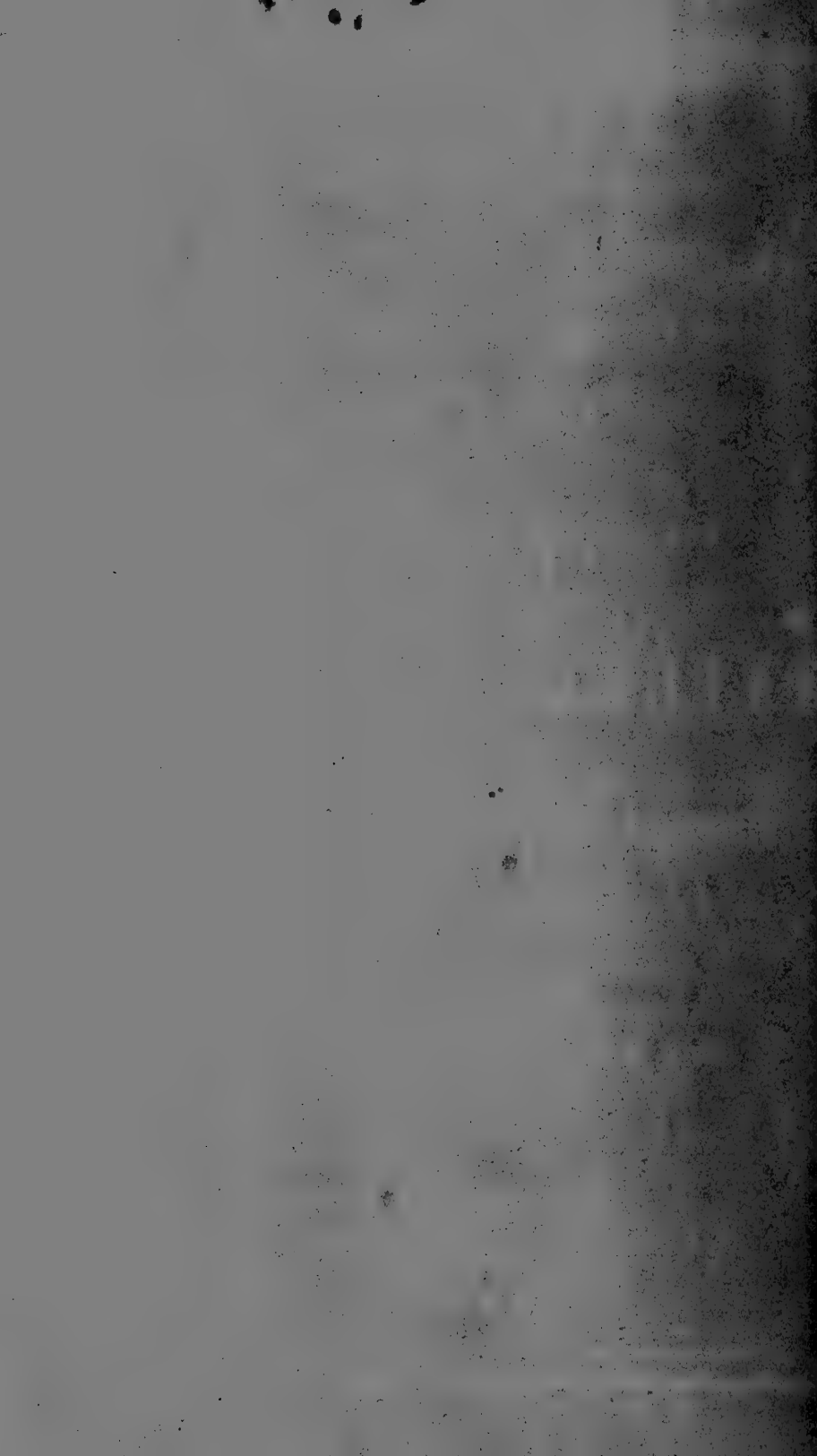
ANNEXED THERETO.

~~~~~  
Made to the Senate, February 20, 1856.  
~~~~~

ALBANY:

C. VAN BENTHUYSEN, PRINTER TO THE LEGISLATURE,  
No. 407 Broadway.

1856.



NINTH ANNUAL REPORT

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THE UNIVERSITY OF CHICAGO PRESS

CHICAGO, ILLINOIS

1950

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THE UNIVERSITY OF CHICAGO PRESS

CHICAGO, ILLINOIS

1950

# State of New-York.

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No. 112.

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IN SENATE, FEB. 20, 1856.

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## NINTH ANNUAL REPORT.

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TO THE HON. HENRY J. RAYMOND,

Lieutenant-Governor, and President of the Senate.

SIR :

I HAVE the honor to transmit the Annual Report of the Regents of the University, on the State Cabinet of Natural History, and the Historical and Antiquarian Collection annexed thereto.

I remain, very respectfully,

Your obedient servant,

G. Y. LANSING, *Chancellor.*

FEBRUARY 20, 1856.





## REGENTS OF THE UNIVERSITY, 1856.

---

GERRIT Y. LANSING, *Chancellor.*

JOHN GREIG, *Vice-Chancellor.*

MYRON H. CLARK, Governor, *ex officio.*

HENRY J. RAYMOND, Lieutenant-Governor, *ex officio.*

JOEL T. HEADLEY, Secretary of State, *ex officio.*

VICTOR M. RICE, Superintendent of Public Instruction, *ex officio.*

GULIAN C. VERPLANCK, LL.D.

JOHN K. PAIGE.

ERASTUS CORNING.

PROSPER M. WETMORE.

JOHN L. GRAHAM.

JOHN M'LEAN.

GIDEON HAWLEY, LL.D.

DAVID BUEL.

JAMES S. WADSWORTH.

JOHN V. L. PRUYN, LL.D.

ROBERT CAMPBELL.

REV. SAMUEL LUCKEY, D.D.

ROBERT G. RANKIN.

JOHN N. CAMPBELL, D.D.

ERASTUS C. BENEDICT.

(Two vacancies.)

SAMUEL B. WOOLWORTH, *Secretary.*

# STANDING COMMITTEES OF THE REGENTS,

SPECIALLY CHARGED WITH THE CARE OF THE STATE CABINET.

---

1855.

MYRON H. CLARK, *Governor.*

ELIAS W. LEAVENWORTH, *Secretary of State.*

ERASTUS CORNING.

ROBERT G. RANKIN.

JOHN K. PAIGE.

---

1856.

MYRON H. CLARK, *Governor.*

JOEL T. HEADLEY, *Secretary of State.*

ERASTUS C. BENEDICT.

REV. DR. CAMPBELL.

ERASTUS CORNING.

JOHN GEBHARD JUNIOR, *Curator.*

JAMES A. HURST, *Taxidermist.*

# REPORT.

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TO THE LEGISLATURE OF THE STATE OF NEW-YORK,

The Regents of the University

RESPECTFULLY REPORT :

That the erection of a new building for the collections in Natural History on the site of the old one, rendered necessary the removal of these collections to such places as could be temporarily provided for them, and thus prevented any extended and systematic efforts for their increase. Some valuable additions, however, have been made, and something has been done toward a more complete exhibition of the Natural History of the State.

In the last report, allusion was made to the promise of a large collection of fish, native to the State, from Professor BAIRD, of the Smithsonian Institution. These have been received, and the catalogue is annexed to this report.

A collection of fresh water shells has also been received from Professor DEWEY, of the Rochester University. They have been collected principally from the waters of the western part of the State, though a few are from Ohio, and are valuable for the purposes of comparison.

The Curator continues his catalogue of newly discovered fishes inhabiting the State. He also reports the materials deposited with him during the past year, towards completing the Palæontology.

The Regents have looked forward with great interest to the completion of the building, the erection of which was directed by the last Legislature, for the joint occupancy of the museum of the State Agricultural Society, and the several cabinets of Natural History. It is understood that the part of the building assigned to the Agricultural Society meets their wants and wishes.

While the board to whom its construction was committed, undoubtedly intended to provide for the best scientific arrangement of the large collections which the State has at great expense caused to be made; it is found that such an arrangement is quite impracticable with the present construction of a portion of the interior of the building.

What New-York has done in exploring its Geological structure, and in classifying and naming its rocks, has given the State an authority and character, in this department of science, which is acknowledged wherever the science is cultivated. The object of the collection is to exhibit on the floor of the room, by rocks and fossils gathered from every formation, their relative position in the order of real place. The collection will be almost worthless if otherwise exhibited; for it will not represent nature and truth. Under this condition of things, the Regents have not felt warranted in directing the arrangement of the collections in the building as now constructed. They have chosen to state the facts to the Legislature, rather than to attempt to do what they are confident would soon be directed to be undone; and to ask such an appropriation as will enable them to adapt the interior of the building to the purposes designed, and to erect the necessary cases for the preservation and proper exhibition of the collections, thus making such a display of the Natural resources of the State as will be a source of just pride to its citizens.

By Order of the Regents.

G. Y. LANSING, *Chancellor.*

S. B. WOOLWORTH, *Secretary.*

## ACCOUNT CURRENT.

The Regents of the University, in account current with the appropriation for preserving and increasing the "State Cabinet of Natural History, and the Historical and Antiquarian Collection annexed thereto," and for defraying the incidental expenses of the same.

### DR.

1854.		
Dec. 26.	To balance of former appropriation remaining in bank (See Senate Document of 1855, No. 40) .....	\$736 84
1855.		
Oct. 9.	To annual appropriation from the Comptroller (in part) .....	200 00
		\$936 84

### CR.

1854.		
Dec. 26.	By cash paid for removing De Rham collection.....No. 1,	\$5 63
1855.		
Mar. 2.	By cash paid J. A. Hurst, taxidermist, quarter's salary to March 1, 1855 .....	No. 2, 50 00
April 30.	By cash paid for removing collection, to April 28 .....	No. 3, 12 50
May 1.	By cash paid John Gebhard, for tooth of fossil elephant .....	No. 4, 11 00
May 5.	By cash paid for removing collection, to May 5 .....	No. 5, 145 50
May 12.	do do do to May 12 .....	No. 6, 160 00
May 19.	do do do to May 19 .....	No. 7, 56 99
May 26.	By cash paid for alcohol and contingents.....	No. 8, 23 13
June 1.	By cash paid J. A. Hurst, quarter's salary .....	No. 9, 50 00
June 5.	By cash paid Professor S. F. Baird, for 82 specimens of fish, with jars and labels.....	No. 10, 100 00
July 12.	By cash paid for contingent expenses.....	No. 11, 9 05
Sept. 13.	By cash paid J. A. Hurst, quarter's salary .....	No. 12, 50 00
"	By cash paid J. A. Hurst, for mounting	
	Great horned owl (presented) .....	\$5 00
	Female " " .....	5 00
	4 Buffalo bony pike, " .....	20 00
	No. 13, .....	30 00
Sept. 15.	By cash paid rent of Mr. Hurst's room, May to Aug. 1855 .....	No. 14, 21 00
Nov. 9.	do do do Aug. to Nov. 1855.....	No. 15, 21 00
Nov. 15.	By cash paid for contingent expenses....	No. 16, 21 32
Dec. 1.	By cash paid J. A. Hurst, for quarter salary .....	No. 17, 50 00
	Balance to new account .....	119 72
		\$936 84

( COPY. )

ALBANY CITY BANK. Dec. 31, 1855. I certify that there is the sum of one hundred and nineteen 72-100 dollars standing to the credit of the State Cabinet of Natural History, on the books of this bank.

(Signed) H. H. MARTIN, *Cashier.*

In behalf of the standing committee on the State Cabinet, I have examined the above account and find it correct. The payments have been made by order of the standing committee, and are accompanied with proper vouchers.

MYRON H. CLARK, *Chairman.*

## CONTENTS OF THE APPENDIX.

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- A. Catalogue of the birds, reptiles, amphibians, fishes, and shells, added to the State Cabinet from January 1, 1855, to January 1, 1856; including the  
Catalogue by Professor S. F. BAIRD, of the fishes furnished to the State Cabinet by the Smithsonian Institution;  
The catalogue of newly discovered fishes inhabiting the State, continued from the last report, by the Curator; and the  
Catalogue of the fresh water shells, furnished to the State, by Professor C. DEWEY, of Rochester.
- B. Catalogue of minerals, geological specimens and fossils, added to the collection during the year.
- C. Additions to the historical and antiquarian collection, during the year.
- D. Materials received at the State Geological Rooms, since January 1, 1855, towards completing the Palæontology.

APPENDIX.

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A.

CATALOGUE

OF THE

BIRDS, REPTILES, AMPHIBIANS, FISHES, AND SHELLS,

ADDED TO THE

STATE CABINET OF NATURAL HISTORY,

FROM

JANUARY 1, 1855, TO JANUARY 1, 1856.

1911

1912



## BIRDS.

---

### ORDER V. LOBIPEDES.

#### FAMILY PODICIPIDÆ.

PODICEPS CORNUTUS. *Horned Grebe* (female).

Dekay's New-York Fauna, Part II, pa. 274, pl. 140, f. 305.

This specimen was shot in the Hudson River, at Port Schuyler, on the 8th day of February, 1855, by J. F. ROY, and presented to the State Collection by JAMES ROY, of West Troy.

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## REPTILES.

---

We publish with pleasure the following communication, from that indefatigable naturalist, Professor SPENCER F. BAIRD, at present the assistant secretary of the Smithsonian Institution, at Washington : from which it will be seen, that another species is added to the number of New-York serpents.

SMITHSONIAN INSTITUTION,  
WASHINGTON, D. C., Oct. 5, 1855.

DEAR SIR — We received a day or two ago, from General WARD, of Sing-Sing, a specimen of the *Heterodon niger*, or *Black Viper*, caught by him on his place in that village. As this is the first published account of its existence in New-York, it may be well to place the fact on record in the next report of the New-

York State Cabinet. You will perhaps remember, that in my article on the serpents of New-York, published in the report for 1853,\* I mentioned this as an additional species to be looked for along the southern border of the State.

The list of New-York serpents, with the present addition, now embraces eighteen species.

Yours truly,

SPENCER F. BAIRD.

JOHN GEBHARD JUNIOR, Albany.

As this species is not included in Dekay's Fauna of our State, we publish the following detailed description by Professor BAIRD, taken from the catalogue of North American Reptiles in the museum of the Smithsonian Institution.

HETERODON NIGER, *Troost.*—Black Viper.

SPEC. CHAR. Vertical plate as long as the occipitals. Rostral prominent.

Dorsal rows of scales 25, the exterior smooth, the 2d row obsoletely carinated, the rest with the scales distinctly carinated, the carinæ extending quite to the tip. Uniform black above, slate-color beneath.

SYNONYMS.

*Vipera nigra*, CATESBY, Nat. Hist. Carol. II, 1743, 44. Pl. xlv.

*Scytale niger*, DAUD. Hist. Nat. Rept. V, 1799, 342.—HARL. Journ. Acad. Nat. Sc. Philad. V, 1827, 367; and Med. & Phys. Res. 1835, 130.

*Coluber cacodemon*, SHAW, Gen. Zool. III, 1802, 377. Pl. cii.

*Coluber thraso*, HARL. Med. & Phys. Res. 1835, 120.

*Heterodon niger*, TROOST. Ann. Lyc. Nat. Hist. N. York, III, 1836, 186.—? HOLBR. N. Amer. Herp. 1st ed. II, 1838, 105. Pl. xxiii; and 2d ed. III, 1842, 63. Pl. xvi.

Black Viper; Spreading Adder.

Postfrontals large, extending to the loreal. Prefrontals smaller. Azygos rather large, separating the prefrontals entirely, and the postfrontals anteriorly : in a line with the rostral. Rostral broad. Keel acutely distinct. Scales on the back of head keeled, though obsoletely in those next to the occipital plates. The line from tip of snout to lower angle of posterior labial, crosses the lower part of the eye, whose centre is a little in advance of the middle of this line. Orbital chain of 9 plates. Loreal tri-

\* See Seventh Annual Report, page 103.

angular, truncated above. Nasals rather large, less developed than in *H. platyrhinos*. Upper labials 8; 3d - 6th in contact with suborbitals. Centre of eye above the juncture of the 4th and 5th.

Scales distinctly carinated, except the outer row, which is smooth, and the second, on which the carination is very obsolete, sometimes quite smooth. All the scales diminish gradually to the back, where they are quite linear; posteriorly, however, they are broader.

Color above and on the sides entirely dull black, beneath rather light slate-color, shading into milk-white on the chin and on the edge of the upper labials. The exterior row of scales shade gently from the color of the back to that of the belly.

The *Heterodon niger* bears quite a close relationship in the character of the plates and scales to *H. platyrhinos*, from which the principal difference lies in the color. Although this species greatly resembles in color the black variety of *H. atmodes*, they may be readily distinguished. The rostral of *H. niger* is well developed, high, broad, and with the dorsal carina acute and well marked. The carination on the scales back of the head is delicately distinct, as also upon the other scales, the keel extending to the very tip. The scales on the back are linear and narrow, but become much broader in proportion towards the tail. The occipitals are longer, and the head in front of the eye longer in proportion to the part behind it. No bands evident, even obsoletely. The other differs in all these respects: rostral low, and the keel more rounded; scales on back shorter, and anteriorly rather broad, and the disproportion with those posteriorly much less conspicuous; carinæ not extending to the tip; faint bars seen indistinctly across the black of the back, &c.

*Carlisle, Pa.* ♀                    140+1. 49. 25.    36. 6.                    S. F. Baird.

Specimens from the south differ simply in being rather darker on the sides and beneath.

*Abbeville, S. C.*                145+1. — 25.    26. —                    Dr. J. B. Barratt.

*Kempe county, Miss.*        126+1. 53. 25.    28. 5½.                    D. C. Lloyd.

## AMPHIBIANS.

MENOBRANCHUS MACULATUS, Barnes. *The Spotted Proteus.*

This beautiful specimen was taken in the Hudson river, near the city of Albany, in the month of May, 1855, and presented to the State Cabinet, by Dr. VAN RENSSELAER, of Greenbush, Rensselaer county, N. Y.

This species is not described by DEKAY, in the New-York Fauna; and as the description of the *Menobranchnus maculatus* of Barnes, by the Rev. ZADOCK THOMPSON, in his Natural History of Vermont, so correctly and accurately describes our specimen, we have thought proper to publish his description entire.

DESCRIPTION. General color dark cinereous gray, produced by minute yellowish specks on a dark bluish ground, and irregularly interspersed with circular spots about the size of a pea, of a darker hue; the throat and central part of the abdomen nearly white; a brownish stripe commencing at the nose and extending backwards over the eye; the margin of the tail often of an orange tinge, with blackish blotches near the extremity. The head is large, flattened, and the snout truncated; eyes small and far apart; mouth large; throat contracted with a transverse fold in the cuticle beneath; tongue large and fleshy; teeth small and sharp, two rows in the upper jaw and one in the lower. The gills are external, large, and each consists of three delicately tufted or fringed lobes, which, when vibrating in the water, are of a fine blood-red color; body cylindrical, covered with a smooth mucous skin; tail long, flattened and broad vertically, and rounded at the end like that of an eel; legs four, each foot furnished with four toes resembling fingers, but without nails, although the cuticle at the extremities is dark colored, having much the appearance of nails. The total length of the specimen before me, and from which the above description is made, is  $12\frac{1}{2}$  inches, and this is about the usual length.

**HISTORY.** This singular reptile was first described by SCHNEIDER about the year 1799, from a specimen obtained from Lake Champlain.\* This specimen was probably obtained at Winooski falls, which were, for some time, the only known locality of this animal, and where more or less of them are now taken every spring, upon the hooks suspended on night lines for taking fishes. The fishermen formerly considered them poisonous, and when they found them upon their lines they were glad to rid themselves of them by cutting the lines and letting them go with the hook in their mouths; but they are now found to be perfectly harmless and inoffensive. This animal is seldom seen excepting in the months of April and May, and this is the season for depositing its eggs. In a specimen taken on the 13th of April, 1840, I found about 150 eggs of the size of a small pea, and apparently just ready to be extruded. The food of this reptile consists of various kinds of worms and insects. The stomach of the one above mentioned contained two hemipterous insects, each three-fourths of an inch long, the wings and bodies of which were entire; besides numerous fragments of other insects. Of the habits of this animal, very little is known. It seems to spend the greater portion of the time about the falls, concealed in the inaccessible recesses and crevices of the rocks below the surface of the water, and not to venture much abroad excepting at the season for depositing its eggs. Although it passes nearly the whole time in water, it is truly an amphibious animal, having lungs for breathing in the atmosphere, as well as branchiæ for breathing in water. It does not, however, breathe in water by receiving the water into its mouth and passing it out through the gills, in the manner of fishes, but simply by the vibrations of its branchiæ in the water. When kept in a vessel containing a large quantity of water, or in which the water is frequently renewed, it manifests but little disposition to rise to the surface for atmospheric air.

\* The following is Schneider's description and our reptile answers to it in almost every particular.

Corpus ultra 8 pollices longum et fere pollicem, crassum, molle, spongiosum, multis poris pervium, in utroque latere tribus macularum rotundarum, nigrarum seriebus variegatum; cauda compressa et anceps, utrinque maculata, inferiore acie recta, superiore curvata, in finem teretiusculum terminatur. Caput latum et planum: oculi parvi, nares anteriores in margine labii superioris, maxillæ superioris geminæ ut inferioris dentes conici, obtusi, satis longi; lingue lata, integra, anterieus soluta: apertura oris patit usque ad oculorum lineam verticalem; labia piscium labiis similia; pedes dissiti quatuor, tetradactyli omnes, absque unguiculis; ani rima in longitudinem patet; branchiæ utrinque ternæ extus propendent, appositæ superne totidem arcibus cartilagineis, quorum latus internum tubercula cartilaginea, velut in piscium genere, exasperant, &c.

But when the quantity of water is small, and not often changed, it soon finds the air in the water insufficient for its purpose, in which case it comes to the surface, takes in a mouthful of air, and sinks again with it to the bottom. After retaining the air for a time, probably long enough for the consumption of its oxygen in the lungs, it suffers it to escape through the mouth and gill openings, and it is seen to rise in small bubbles to the surface. This animal is said to be found in several places at the west, particularly in streams falling into Lake Ontario, where it is said sometimes to attain the length of two feet. The length of those taken at Winooski falls varies from 8 to 13 inches. I have never seen one which exceeded 15 inches. The best figure of our animal which I have seen published is in the annals of the N. Y. Lyceum, Vol. I, plate 16. The descriptions and figure in Dr. HOLBROOK'S American Herpetology do not answer to our *Menobranchnus*; but as Professor G. W. BENEDICT has furnished Dr. H. with an accurate colored figure, drawn from a living specimen, by the Rt. Rev. J. H. HOPKINS, we hope to see it correctly represented in a future volume of his splendid and valuable work. We are strongly inclined to believe the animal which he describes, to be a different species from ours. Notwithstanding what he and others have said in proof of the identity of the *Triton lateralis* of SAY, the *Menobranchnus lateralis* of HARLAN, HOLBROOK, and others, with the reptile described by SCHNEIDER, I am strongly inclined to the opinion that they are different species. I have therefore given the name suggested by Professor BENEDICT, and adopted by BARNES, the preference, and have described our animal under the name of *Menobranchnus maculatus*, that being descriptive of our reptile, and the other not so.

## FISHES.

## ORDER II. ABDOMINAL.

## FAMILY XXIII. SAURIDÆ.

**LEPISOSTEUS BISON**, Dekay. *Buffalo Bony-Pike.* Four specimens.

Dekay's New-York Fauna, Part IV, pa. 271, pl. 43, f. 139.

These specimens were taken in Chaumont bay, at the east end of Lake Ontario, Jefferson county, N. Y., in the spring of 1855. The largest specimen is forty-six inches in length. There is no perceptible difference, externally, between the males and females. GEBHARD.

## SYNONYMS.

*Esox osseus*, Bony-scaled Pike. *Mitch.*

*Lepisosteus osseus*, Bony Bike. *Lacépède.*

*Lepisosteus oxyurus*. *Rafinesque.*

*Lepisosteus longirostris*. *Cuvier.*

*Lepisosteus huronensis*, Northern Mailed-fish. *Rich.*

*Lepidosteus osseus*, Bony Pike. *Agassiz.*

The following is a translation of the note of Professor AGASSIZ, in his great work "Poissons Fossiles," vol. 2, part ii, pa. 1, on the etymology of LACÉPÈDE's name "Lepisosteus;" and giving the reason for changing it to "Lepidosteus."

"The etymology of this compound name ought to have led LACÉPÈDE to write it "Lepidosteus," in conformity with the Greek mode of declining. I have corrected this little mistake of this elegant French writer, without however intending to ascribe to myself the discovery and establishment of this genus, as has been charged upon me. I make the observation on purpose to show that I am consistent in the application of my principles of nomenclature."

There are specimens of the *Lepidosteus* in the State Collection from Lakes Champlain, Ontario and Erie; and from a critical examination and comparison, no sensible difference is discoverable. They all belong to the species *bison* of DEKAY (*huronensis* of RICHARDSON). It is evident, therefore, that the *bison* and *platyrhincus* of DEKAY are the only species of *Lepidosteus* at present known as inhabiting the waters of the State of New-York.

DEKAY, in his Zoology of the State, has not given any facts in relation to the history of the *Lepidosteus*. To supply in a measure this omission, we make the following extracts from the Natural History of Vermont, by the Rev. ZADOCK THOMPSON.

“This singular fish was described by SAMUEL CHAMPLAIN, as an inhabitant of the Lake now bearing his name, more than 200 years ago. He called it *Chausarou*, which was probably the Indian name. The Indians assured him they were often seen eight or ten feet long, but the largest he saw was only five feet long, and about the thickness of a man’s thigh. It is considered a very voracious fish; and when any of them are taken, or seen in the water, the fishermen calculate upon little success in taking other kinds. CHARLEVOIX tells us that he preys not only upon other fishes, but upon birds also; and that he takes them by the following stratagem: Concealing himself among the reeds growing on the marshy borders of the lake, he thrusts his bill out of the water in an upright position. The bird wanting rest, takes this for a broken limb, or dry reed, and perches upon it. The fish then opens his mouth, and makes such a sudden spring that the bird seldom escapes him. CHARLEVOIX also assures us that the Indians regarded the teeth of this fish as a sovereign remedy for the headache, and that pricking with it where the pain was sharpest, took it away instantly. The scales with which this fish is covered are so thick and strong, as to form a coat of mail, which is not easily pierced with a spear. They are taken only occasionally in the seine at the present day, but are said to be sometimes seen in considerable numbers lying in the marshy coves. Its flesh is rank and tough, and is not used for food. The usual length of those now taken, is from two and a half to three feet, though they are often much longer. One of the largest specimens which I have seen was taken at the mouth of Winooski river, June 16, 1838, and is now in my possession. It is 46 inches long, and when caught weighed nine and a half pounds.”



## EXTRA LINITAL.

From JOHN A. GRANGER ESQ., of Canandaigua, N. Y.

A specimen of an eyeless fish (*Amblyopsis speleus*, of DEKAY), from the River Styx, in the Mammoth Cave of Kentucky.

The following is a copy of the note accompanying the specimen.

CANANDAIGUA, Nov. 9, 1855.

DR. T. ROMEYN BECK,

DEAR SIR — I send to your care, an eyeless fish, taken in the River Styx, in the Mammoth Cave of Kentucky, and brought by me from there in May, 1844; to be presented in my name to the Natural History department of the State of New-York.

Yours, very respectfully,

JOHN A. GRANGER.

## FISHES.

## LIST OF FISHES,

INHABITING THE STATE OF NEW-YORK;

Sent to the New-York State Cabinet of Natural History, by the Smithsonian Institution, in May, 1855.

## SUB-CLASS I. BONY FISH.

## ORDER I. SPINE-RAYED.

## FAMILY I. PERCIDÆ.

LABRAX RUFUS, Dekay. *Ruddy Bass.*

Dekay's New-York Fauna, pa. 9, pl. iii, f. 7. Sing-Sing, Croton river. Brackest waters. (3.) S. F. BAIRD.

CENTROPRISTES NIGRICANS, Cuv. et Val. *The Black Sea Bass.*

Dekay's New-York Fauna, pa. 24, pl. ii, f. 5. New-York bay. (2.) S. F. BAIRD.

BOLEOSOMA TESSELLATUM, Dekay. *The Tessellated Darter.*

Dekay's New-York Fauna, pa. 20, pl. xx, f. 57. Hackensack river, near Piermont. (2.) S. F. BAIRD.

## BOLEOSOMA FUSIFORME, Girard.

Proc. Bost. Soc. Nat. Hist. V, 1854, pa. 41. Cedar swamp creek, Cape May Co. (2.) S. F. BAIRD.  
(New species, not noticed by DEKAY.)

POMOTIS VULGARIS, Cuv. et Val. *The Common Pond-fish.*

Dekay's New-York Fauna, pa. 31, pl. li, f. 166. Sing-Sing, Croton river (N. Y.). Fresh waters. (2.) S. F. BAIRD.

POMOTIS VULGARIS, Cuv. et Val. *The Common Pond-fish.*

Dekay's New-York Fauna, pa. 31, pl. li, f. 166. Fresh waters of the State. (2.) S. F. BAIRD.

POMOTIS APPENDIX, Dekay. *The Black-eared Pond-fish.*

Dekay's New-York Fauna, pa. 32. Sing-Sing, Croton river (N. Y.). Fresh waters. (2.) S. F. BAIRD.

**CENTRARCHUS POMOTIS, Baird.**

Ninth Rep. of Smiths. Inst. 1855, pa. 325. Cedar swamp creek, Cape May Co. Fresh waters. (2.) S. F. BAIRD.  
(New species, not noticed in DEKAY.)

**POMOTIS OBESUS, Girard.**

Proc. Bost. Soc. Nat. Hist. V, 1854, pa. 40. Cedar swamp creek, Cape May Co. S. F. BAIRD. Atlantic Co. Fresh waters. S. F. BAIRD.  
(New species, not noticed in DEKAY.)

**POMOTIS OBESUS, Girard.**

Proc. Bost. Soc. Nat. Hist. V, 1854, pa. 40. Hackensack river, near Piermont, N. Y. (3.) S. F. BAIRD.  
(New species, not noticed in DEKAY.)

**POMOTIS CHÆTODON, Baird.**

Ninth Rep. of Smiths. Inst. 1855, pa. 324. Cedar swamp creek, Cape May Co. Fresh waters. (2.) S. F. BAIRD.  
(New species, not noticed in DEKAY.)

**APHREDODERUS SAYANUS, Dekay. *The Spineless Perch.***

Dekay's New-York Fauna, pa. 35, pl. xxi, f. 62. Cedar swamp creek, Cape May Co. Freshwaters. (3.) S. F. BAIRD.

**SPHYRÆNA BOREALIS, Dekay. *The Northern Barracuta.***

Dekay's New-York Fauna, pa. 39, pl. lx, f. 196. New-York bay. (3.) S. F. BAIRD.

## FAMILY III. TRIGLIDÆ.

**PRIONOTUS PILATUS, Storer.**

Proc. Bost. Soc. Nat. Hist. II, pa. 77. New-York bay. S. F. BAIRD.  
(New species, not noticed in DEKAY.)

**PRIONOTUS PILATUS, Storer.**

Proc. Bost. Soc. Nat. Hist. II, pa. 77. Greenport, L. I. Marine. S. F. BAIRD.  
(New species, not noticed in DEKAY.)

**GASTEROSTEUS QUADRACUS, Mitch. *The Four-spined Stickleback.***

Dekay's New-York Fauna, pa. 67, pl. vi, f. 18. New-York bay. (5.) S. F. BAIRD.

## FAMILY IV. SCIENIDÆ.

**LEIOSTOMUS OBLIQUUS, Dekay. *The Lafayette.***

Dekay's New-York Fauna, pa. 69, pl. lx, f. 195. New-York bay. (3.) S. F. BAIRD.

**OTOLITHUS REGALIS, Cuv. et Val. *The Weak-fish.***

Dekay's New-York Fauna, pa. 71, pl. viii, f. 24. New-York bay. S. F. BAIRD.

**CORVINA ARGYROLEUCA, Cuv. et Val. *The Silvery Perch.***

Dekay's New-York Fauna, pa. 74, pl. xviii, f. 51. Long Island, N. Y. C. C. BREVOORT.

**UMBRINA ALBURNUS**, Cuv. et Val. *The King-fish.*

Dekay's New-York Fauna, pa. 78, pl. vii, f. 20. New-York bay. (Young and adult.) S. F. BAIRD.

**POGONIAS FASCIATUS**, Cuv. et Val. *The Banded Drum.*

Dekay's New-York Fauna, pa. 81, pl. xiv, f. 40. Long Island, N. Y. C. C. BREVOORT.

## FAMILY V. SPARIDÆ.

**SARGUS ARENOSUS**, Dekay. *The Sand Porgee.*

Dekay's New-York Fauna, p. 91, pl. xxii, f. 67. Long Island, N. Y. (2.) C. C. BREVOORT.

**PAGRUS ARGYROPS**, Cuv. et Val. *The Big Porgee.*

Dekay's New-York Fauna, pa. 95, pl. ix, f. 25. Greenport, L. I. S. F. BAIRD.

**PAGRUS ARGYROPS**, Cuv. et Val. *The Big Porgee,*

Dekay's New-York Fauna, pa. 95, pl. ix, f. 25. Long Island, N. Y. C. C. BREVOORT.

## FAMILY IX. SCOMBRIDÆ.

**EUCINOSTOMUS ARGENTEUS**, B. & G.

Ninth Rep. of Smiths. Inst. 1855, pa. 334. New-York bay. (2.) S. F. BAIRD.  
(New species, not noticed in DEKAY.)

**SCOMBER VERNALIS**, Mitch. *The Spring Mackerel.*

Dekay's New-York Fauna, pa. 101, pl. xii, f. 34. Long Island, N. Y. C. C. BREVOORT.

**PELAMYS SARDA**, Cuv. et Val. *The Striped Boneto.*

Dekay's New-York Fauna, pa. 106, pl. ix, f. 27. Long Island, N. Y. C. C. BREVOORT.

**LICHIA CAROLINA**, Dekay. *The Carolina Lichia.*

Dekay's New-York Fauna, pa. 114, pl. x, f. 30. New-York bay. (4.) S. F. BAIRD.

**TRACHINOTUS SPINOSUS**, Dekay. *The Spinous Trachinote.*

(*Lichia spinosa*, Baird.)

Dekay's New-York Fauna, pa. 117, pl. xix, f. 53. New-York bay. (2.) S. F. BAIRD.

**CARANX DEFENSOR**, Dekay. *The Southern Caranx.*

Dekay's New-York Fauna, pa. 120, pl. xxiv, f. 72. Brooklyn, L. I. C. C. BREVOORT.

**CARANX CHRYSOS**, Cuv. et Val. *The Yellow Mackerel.*

Dekay's New-York Fauna, pa. 121, pl. xxvii, f. 85. Long Island, N. Y. C. C. BREVOORT. New-York bay. C. C. BREVOORT.

**WOMER BROWNI**, Cuv. et Val. *The Blunt-nosed Shiner.*

Dekay's New-York Fauna, pa. 127, pl. xxv, f. 78. Long Island, N. Y. C. C. BREVOORT.

**SERIOLA ZONATA**, Cuv. et Val. *The Banded Seriole.*

Dekay's New-York Fauna, pa. 128, pl. ix, f. 26. Long Island, N. Y.  
C. C. BREVOORT.

**TEMNODON SALTATOR**, Cuv. et Val. *The Bluefish.*

Dekay's New-York Fauna, pa. 130, pl. xxvi, f. 81. New-York bay.  
S. F. BAIRD.

**TEMNODON SALTATOR**, Cuv. et Val. *The Bluefish.*

Dekay's New-York Fauna, pa. 130, pl. xxvi, f. 81. Sing-Sing, Croton  
river, N. Y. Brackish water. (2.) S. F. BAIRD. Sing-Sing. (2.) S.  
F. BAIRD.

**RHOMBUS TRIACANTHUS**, Dekay. *The Short-finned Harvest-fish.*

(*Peprilus triacanthus*, Storer.)

Dekay's New-York Fauna, p. 137, pl. xxvi, f. 80. New-York bay. (2.)  
S. F. BAIRD.

## FAMILY XII. ATHERINIDÆ.

**ATHERINA NOTATA**, Mitch. *The Dotted Silverside.*

(*Atherinopsis notatus*, Girard.)

Dekay's New-York Fauna, pa. 141, pl. xxviii, f. 88. New-York bay.  
(2.) S. F. BAIRD.

**ATHERINA NOTATA**, Mitch. *The Dotted Silverside.*

(*Atherinopsis notatus*, Girard.)

Dekay's New-York Fauna, pa. 141, pl. xxviii, f. 88. Sing-Sing, N. Y.  
Croton river. Brackish water. S. F. BAIRD.

## FAMILY XIII. MUGILIDÆ.

**MUGIL ALBULA**, Lin. *The White Mullet.*

Dekay's New-York Fauna, pa. 146. New-York bay. (2.) S. F. BAIRD.

**MUGIL ALBULA**, Lin. *The White Mullet.*

Dekay's New-York Fauna, pa. 146. Long Island, N. Y. C. C. BREVOORT.

## FAMILY XIV. GOBIDÆ.

**GOBIUS ALEPIDOTUS**, Bosc. *The Variegated Goby.*

Dekay's New-York Fauna, pa. 160, pl. xxiii, f. 70. New-York bay.  
S. F. BAIRD.

## FAMILY XV. LOPHIDÆ.

**BATRACHUS VARIEGATUS**, Lesu. *The Variegated Toad-fish.*

Dekay's New-York Fauna, pa. 171. Beesley's Point, N. J. S. F. BAIRD.  
(DEKAY describes this fish as *Extra-limi. al.*)

## FAMILY XVI. LABRIDÆ.

**TAUTOGA AMERICANA**, Cuv. et Val. *The New-York Tautog.*

Dekay's New-York Fauna, pa. 175, pl. xiv, f. 39. Greenport, L. I.  
(2.) S. F. BAIRD. New-York bay. S. F. BAIRD.

## ORDER II. ABDOMINAL.

## FAMILY XVII. SILURIDÆ.

NOTURUS FLAVUS, Rafin. *Yellow Blacktail, Young Catfish.*

Dekay's New-York Fauna, pa. 187. Hackensack river. (2.) S. F. BAIRD.

## FAMILY XVIII. CYPRINIDÆ.

CYPRINUS AURATUS, Lin. *The Gold Carp.*

Dekay's New-York Fauna, pa. 190. Sing-Sing, Croton river. Fresh waters. S. F. BAIRD.

LABEO GIBBOSUS, Dekay. *The Gibbous Chubsucker.*

(*Catostomus gibbosus*, Lesu.)

Dekay's New-York Fauna, pa. 194, pl. xxxii, f. 101. Riverhead, L. I. Fresh waters. S. F. BAIRD.

STILBE CHRYSOLEUCAS, Dekay. *The New-York Shiner.*

(*Leuciscus americanus*, Storer.)

(*Leucosomus americanus*, Girard.)

(*Luxilus chrysoleucas*, Agassiz.)

Dekay's New-York Fauna, pa. 204, pl. xxix, f. 91. Hackensack river, near Piermont. S. F. BAIRD.

LEUCISCUS HUDSONIUS, Dekay. *The Spawn-eater.*

(*Stolephorus hudsonius*, Coz.)

Dekay's New-York Fauna, pa. 206, pl. xxxiv, f. 109. Sing-Sing, Croton river. Brackish water. S. F. BAIRD.

LEUCISCUS CORNUTUS, Dekay. *The Redfin.*

(*Hypsoplepis cornutus*, Girard.)

Dekay's New-York Fauna, pa. 207, pl. xxix, f. 92. Sing-Sing, Croton river. (2.) S. F. BAIRD.

LEUCISCUS? CORPORALIS, Dekay. *The Corporaalen.*

(*Chilonemus corporalis*, B. & G. *The Roach Dace.*)

Dekay's New-York Fauna, pa. 213. Sing-Sing, Croton river. Fresh waters. S. F. BAIRD.

LEUCISCUS PYGMÆUS, Dekay. *The Pigmy Dace.*

(*Melanura annulata*, Agassiz.)

Dekay's New-York Fauna, pa. 214, pl. xlii, f. 134. Hackensack river, near Piermont. S. F. BAIRD.

LEUCISCUS PYGMÆUS, Dekay. *The Pigmy Dace.*

(*Melanura annulata*, Agassiz.)

Dekay's New-York Fauna, pa. 214, pl. xlii, f. 134. Sparkill, near Piermont. (3.) S. F. BAIRD.

LEBIAS OVINUS, Dekay. *The Sheepshead Lebias.*

(*Cyprinodon ovinus*, Val.)

Dekay's New-York Fauna, pa. 215, pl. xxvii, f. 84. Beesley's Point. (7.) S. F. BAIRD.

## CYPRINODON PARVUS, B. &amp; G.

Ninth Rep. of Smiths. Inst. 1855, p. 345. Beesley's Point, N. J. S. F. BAIRD.  
(New species, not noticed in DEKAY.)

FUNDULUS FASCIATUS, Dekay. *The Striped Killifish.*

(*Hydrargyra flavula*, Storer.)

Dekay's New-York Fauna, pa. 216, pl. xxxi, f. 98. Greenport, L. I. Marine. (4.) S. F. BAIRD.

FUNDULUS FASCIATUS, Dekay. *The Striped Killifish.*

(*Hydrargyra flavula*, Storer.)

Dekay's New-York Fauna, pa. 216, pl. xxxi, f. 98. Beesley's Point, N. J. (2.) S. F. BAIRD.

FUNDULUS ZEBRA, Dekay. *The Barred Killifish.*

Dekay's New-York Fauna, pa. 218. Beesley's Point, N. J. (2.) S. F. BAIRD.

FUNDULUS ZEBRA, Dekay. *The Barred Killifish.*

Dekay's New-York Fauna, pa. 218. Greenport, L. I. Marine. (2.) S. F. BAIRD.

HYDRARGYRA DIAPHANA, Lesu. *The Transparent Minnow.*

(*Fundulus diaphanus*, Agassiz.)

Dekay's New-York Fauna, pa. 219. Ludley's Run. (4.) S. F. BAIRD.

HYDRARGYRA MULTIFASCIATA, Lesu. *The Barred Minnow.*

(*Fundulus multifasciatus*, Cuv. et Val.)

Dekay's New-York Fauna, pa. 220. Riverhead, L. I. Fresh waters. (7.) S. F. BAIRD.

HYDRARGYRA MULTIFASCIATA, Lesu. *The Barred Minnow.*

(*Fundulus multifasciatus*, Cuv. et Val.)

Dekay's New-York Fauna, pa. 220. Sing-Sing. Brackish water. (3.) S. F. BAIRD.

## FAMILY XIX. ESOCIDÆ.

ESOX RETICULATUS, Lesu. *The Common Pickerel.*

Dekay's New-York Fauna, pa. 223, pl. xxxiv, f. 107. Beesley's Point, N. J. S. F. BAIRD.

ESOX FASCIATUS, Dekay. *The Varied Pickerel.*

Dekay's New-York Fauna, pa. 224, pl. xxxiv, f. 110. Beesley's Point, N. J. S. F. BAIRD.

ESOX FASCIATUS, Dekay. *The Varied Pickerel.*

Dekay's New-York Fauna, pa. 224, pl. xxxiv, f. 110. Near Piermont, Hackensack river. (2.) S. F. BAIRD.

BELONE TRUNCATA, Lesu. *Banded Garfish, or Silver Gar.*

Dekay's New-York Fauna, pa. 227, pl. xxxv, f. 112. New-York bay. (2.) S. F. BAIRD.

## FAMILY XXII. CLUPIDÆ.

CLUPEA VITTATA, Mitch. *The Satin-striped Herring.*

(*Engraulis vittatus*, B. & G.)

Dekay's New-York Fauna, pa. 254. New-York bay. (2.) S. F. BAIRD.

ALOSA TYRANNUS, Dekay. *The American Alewife.*

Dekay's New-York Fauna, pa. 258, pl. xiii, f. 38. Sing-Sing, Croton river. Brackish waters. (2.) S. F. BAIRD.

ALOSA MENHADEN, Storer. *The Mossbonker.*

Dekay's New-York Fauna, pa. 259, pl. xxi, f. 60. New-York bay. 2 young, and 2 adults. S. F. BAIRD.

ALOSA MATTOWACCA, Dekay. *Autumnal Herring.*

Dekay's New-York Fauna, pa. 260, pl. xl, f. 127. New-York bay. S. F. BAIRD.

ALOSA TERES, Dekay. *The Slender Herring.*

Dekay's New-York Fauna, pa. 262, pl. xl, f. 128. New-York bay. (2.) S. F. BAIRD.

CHATÆSSUS SIGNIFER, Dekay. *The Spotted Thread-herring.*

Dekay's New-York Fauna, pa. 264, pl. xli, f. 132. New-York bay. S. F. BAIRD.

CHATÆSSUS SIGNIFER, Dekay. *The Spotted Thread-herring.*

Dekay's New-York Fauna, pa. 264, pl. xli, f. 132. Long Island, N. Y. C. C. BREVOORT.

ELOPS SAURUS, Lin. *The Saury.*

Dekay's New-York Fauna, pa. 267, pl. xli, f. 131. Long Island. C. C. BREVOORT.

## FAMILY XXV. PLANIDÆ.

PLATESSA PLANA, Storer. *The New-York Flatfish.*

Dekay's New-York Fauna, pa. 295, pl. xlviii, f. 154, and pl. xlix, f. 158. New-York bay. S. F. BAIRD.

PLATESSA OCELLARIS, Dekay. *The Long-toothed Flounder.*

Dekay's New-York Fauna, pa. 300, pl. xlvii, f. 152. New-York bay. (2.) S. F. BAIRD.

PLEURONECTES MACULATUS, Mitch. *The Spotted Turbot.*

(*Rhombus macula'us*, Girard.)

Dekay's New-York Fauna, pa. 301, pl. xlvii, f. 151. New-York bay. S. F. BAIRD.

ACHIRUS MOLLIS, Cuv. *The New-York Sole.*

Dekay's New-York Fauna, pa. 303, pl. xlix, f. 159. New-York bay. S. F. BAIRD.

## ORDER IV. APODAL.

## FAMILY XXVIII. ANGUILLIDÆ.

ANGUILLA TENUIROSTRIS, Dekay. *The Common New-York Eel.*

Dekay's New-York Fauna, pa. 310, pl. liii, f. 173. New-York bay. S. F. BAIRD.



## ORDER V. LOPHOBRANCHII.

## FAMILY XXIX. SYNGNATHIDÆ.

**SYNGNATHUS VIRIDESCENS**, Dekay. *The Green Pipe-fish.*

Dekay's New-York Fauna, pa. 321, pl. liv, f. 176. New-York bay.  
(3.) S. F. BAIRD.

## ORDER VI. PLECTOGNATHI.

## FAMILY XXX. GYMNODONTIDÆ.

**TETRAODON TURGIDUS**, Storer. *The Common Puffer.*

Dekay's New-York Fauna, pa. 327, pl. lv, f. 178. New-York bay. S.  
F. BAIRD.

## SUB-CLASS II. CARTILAGINOUS FISHES.

## ORDER II. PLAGIOSTOMI.

## FAMILY II. SQUALIDÆ.

**MUSTELUS CANIS**, Dekay. *The Dog-fish.*

Dekay's New-York Fauna, pa. 355, pl. lxiv, f. 209. New-York bay.  
(2.) S. F. BAIRD.

## FAMILY III. RAIIDÆ.

**PASTINACA HASTATA**, Dekay. *The Whip Sting-ray.*

Dekay's New-York Fauna, pa. 373, pl. lxxv, f. 214. New-York bay.  
S. F. BAIRD.

## CATALOGUE

Of the Fishes inhabiting the State of New-York (discovered since the publication of Dekay's Zoology).

CONTINUED FROM LAST YEAR'S REPORT.

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|-----|---|----------|
| 356 | <i>BOLEOSOMA FUSIFORME</i> , Girard.  | Cabinet. |
|     | Cedar swamp creek, Cape May Co. S. F. BAIRD.  |          |
| 357 | <i>CENTRARCHUS POMOTIS</i> , Baird.   | Cabinet. |
|     | Cedar swamp creek, Cape May Co. Fresh waters. S. F. BAIRD.  |          |
| 358 | <i>POMOTIS OBESUS</i> , Girard.   | Cabinet. |
|     | Cedar swamp creek, Cape May Co.; and Atlantic Co. Fresh waters.<br>S. F. BAIRD. Hackensack river, near Piermont, N. Y. S. F. BAIRD. |          |
| 359 | <i>POMOTIS CHÆTODON</i> , Baird.  | Cabinet. |
|     | Cedar Swamp creek, Cape May Co. Fresh waters. S. F. BAIRD.  |          |
| 360 | <i>PRIONOTUS PILATUS</i> , Storer.  | Cabinet. |
|     | New-York bay. S. F. BAIRD. Greenport, L. I. Marine. S. F. BAIRD.  |          |
| 361 | <i>EUCINOSTOMUS ARGENTEUS</i> , B. & G.   | Cabinet. |
|     | New-York bay. S. F. BAIRD.  |          |
| 362 | <i>CYPRINODON PARVUS</i> , B. & G.  | Cabinet. |
|     | Beesley's Point, N. J. S. F. BAIRD.   |          |

## CONCHOLOGY.

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The following is a copy of the communication of Professor CHESTER DEWEY, of Rochester, accompanying his donation of fresh-water shells, furnished to the State Cabinet.

“TO JOHN GEBHARD JUNIOR,

Curator of the State Cabinet of Natural History.

I direct to your hand, the shells collected chiefly in this section of the State, for the State Cabinet. They belong to the family Naiades, usually called clams or mussels, and are named according to the synopsis of ISAAC LEA, Esq. Not all those described in the State Natural History, by Dr. DEKAY, have yet been found here; but some others, not before credited to the State, by any writer that I have seen, are put into the collection.

I have sent twelve species of *Unio* from this section, and have added seventeen species, chiefly from Ohio; three species of *Margaritana* of *Schumacher*, usually called *Alasmodonta*; and eleven species of *Anodonta*.

*Alasmodonta arcuata*, Barnes, has not occurred to me in this part of the State.

While most of the species are abundant, some inhabit deep water, and are difficult of access. Two species, *Unio alatus*, and *Unio complanatus*, are in vast numbers between the lake (Ontario) and the first falls of the Genesee river, for the distance of four miles or more. I have brought up by a rake fourteen inches by four, from three to fourteen specimens. The bottom of the river, ten or fifteen rods broad, seems full of them. Indeed, a man who has often dived and examined the bottom of the Genesee in various places on the level of the lake, asserts that the bottom is literally covered with these shells. If they are as numerous in the whole breadth as I have found them in many places for a mile or two, there must be many thousands of bushels. *Unio luteolus*, is also abundant. To those, who have made more explorations, this mass of fresh-water clams may not be surprising; but it far surpassed all my anticipations. As these species have thick and strong shells, the muskrats, which devour clams,

may find it difficult to break them open, and for this reason fewer may be destroyed. Certain it is, that the fragments of the thinner and more fragile shells are far more abundant along the shores of the river.

Besides the species specially noticed, Dr. SARTWELL has also sent in this collection many specimens of the other species, in order to increase the varieties, or add to the localities of them in the cabinet of the State.

The mistakes of LINNÆUS in making the upper part of a shell the lower, and the anterior part, the posterior, has been for some years corrected. It is well known that the base or lower part of bivalves, which have locomotion, as all the naiades, is the opening or orifice on the side opposite to the hinge, and that the common and natural position of the shell is with the hinge uppermost; but, for a certain period in summer, many species are often found in pairs near each other, with the hinge side below and inclined to the horizon, and the posterior third or fourth of it standing in the mud, while the animal projects its body in part out of the shell and upwards. The animal holds this position so long that the mud becomes strongly coherent to the hinder part of the shell, so as to be washed off with difficulty."

Your obedient,

ROCHESTER, Dec. 1855.

C. DEWEY.

The following catalogue of the specimens was prepared by the donor, Professor C. DEWEY, of Rochester.

### LIST OF NAIADES (CLAMS),

FOUND IN WESTERN NEW-YORK, AND SENT TO THE STATE COLLECTION  
AT ALBANY, WITH SOME CHIEFLY FROM OHIO.

UNIO, BRUG.; or rather PHILIPSSON.

The name signifies a *pearl*, as pearls are in some species.

1 UNIO ALATUS, Say. Dekay's New-York Fauna, Part V, pa. 195.

U.	id	Lamarck.	U.	ALATUS,	Lea.
U.	id	Barnes.	U.	id	Adams.
U.	id	Hildreth.	U.	id	Dekay.
U.	id	Conrad.			

MYA ALATA, Wood.

I send six varieties, male and female; one large male.

*Genesee river*, on the level of Lake Ontario; nacre purple, deep red, or reddish yellow, splendid. The largest found here, measured in height five inches, and breadth seven. Also in the *Erie canal*, and the eastern part of the State.

2 UNIO RADIATUS, Lam. Dekay's New-York Fauna, Part V, pa. 189,  
pl. 18, f. 236.

U. id Barnes. U. VIRGINIANA, Lea.

U. id Gould. U. id Dekay.

U. VIRGINIANA, Lamarck.

MYA RADIATA, Gmel. Wood.

One specimen from Genesee river; one from Crooked lake; and one from the Potomac, near Mt. Vernon, where the shore abounds with this species.

3 UNIO NOVI-EBORACI, Lea. Dekay's New-York Fauna, Part V, pa. 194, pl. 20, f. 240.

Several varieties; some well marked, but others approaching the *U. iris*; plenty in Genesee river above the rapids at Rochester.

4 UNIO IRIS, Lea.

Six varieties well marked; and six approaching the *U. novi-eboraci*, with which it is found. Mr. LEA has said that the two may prove, on full examination, to be only one species.

5 UNIO RUBIGINOSUS, Lea. (Not described by Dekay.)

U. FLAVUS, Conrad.

Four varieties found in the Erie canal at Rochester, and not before credited to this State. It is found in Ohio, and has probably found its way from Lake Erie along the canal; for some animals have passed from Lake Erie, to the Mohawk and Hudson. The nacre is white, reddish, or yellow; but the body of the clam is a fine yellow, an uncommon color here.

6 UNIO GRACILIS, Barnes. (Not described by Dekay.)

U. id Lea.

U. id Hildreth.

U. id Adams.

U. PLANUS, Barnes.

U. FRAGILIS, Swainson.

Two varieties, from Genesee river, on the level of Lake Ontario; not before credited to the State. The shell is often delicate, four inches in breadth and three in height; and the younger shells very fragile: shell much stronger in Ohio.

7 UNIO LUTEOLUS, Lam. Dekay's New-York Fauna, Part V, pa. 190,  
pl. 20, f. 241.

U. SILIQUOIDENS, Barnes; podlike, and male.

U. id Conrad.

U. id Adams.

U. INFLATUS, Barnes. Well named, and female.

Many varieties, I send, differing in form and color, and radiations; one nearly black. The variety of names is obvious. Abounds in the Genesee, especially above the falls at Rochester; the longest being six inches by three.

8 UNIO PRESSUS, Lea.

U. COMPRESSUS. Dekay's New-York Fauna, Part V, pa. 191, pl. 21, f. 245.

U. id Conrad. Adams.

Mr. CONRAD'S name had already been applied to a fossil Unio, and hence the new specific name by Mr. LEA. From the Genesee river; the Erie canal; and one from Ohio.

9 UNIO COMPLANATUS, Lea. Dekay's New-York Fauna, Part V, pa. 188, pl. 22, f. 246.

U. id Gould. Adams.

U. PURPUREUS, Say. Barnes. Conrad.

MYA COMPLANATA, Solander.

MYA RIGIDA, Wood.

As this species is quite variable, I send a dozen or more varieties, younger and older, longer and shorter, &c. The nacre varies from white to light purple, deep reddish purple, and fine orange or reddish yellow.

I give the height and the length and breadth of several from different localities, in inches.

From the Genesee river; some shade of purple.

3.75 & 2.25; 4.25 & 2.25; 4.50 & 2.33; 4.33 & 2.25; 2.40 & 1.33; 1.10 & 0.50; 3.75 & 2.40.

From below the falls; white. 3.35 & 2.10. Purple. 4.25 & 2.25.

From the Genesee river, both above and below the falls; fine yellow. 4.20 & 2.50.

From the Erie canal. 3.70 & 2.25.

From the Delaware river. 4.10 & 2.20; 3.10 & 2.20.

From New-Jersey. 4.00 & 2.30.

This species has a strong shell.

The variety in the form has originated many names or species.

It is stated by our conchologists, that Lamarek made six or eight species from these varieties.

α UNIO PURPURASCENS, Lam. Stated by him to be from the rivers of this State. Corresponds to the prominent form.

- b* UNIO RHOMBULA, Lam. Is credited by him to the Hudson river; from which I have one measuring 3.37 & 1.87.
- c* UNIO GEORGINA, Lam. From Lake George.
- d* UNIO CARINIFERA, Lam. From the Hudson river.
- e* UNIO COARCTATA, Lam. From the Hudson river, and much like *U. carinifera*.
- f* UNIO RARISULCATA, Lam. From Lake Champlain.
- g* UNIO SULCIDENS, Lam. From Connecticut river; and one from the Schuylkill, measuring 2.13 & 1.33.
- h* UNIO GLABRATA, Lam. Credited by Lamarck to the Ohio river; much resembles *U. gibbosus*, Barnes, as it was called three years after the other had been named.

From the River Potomac, one measures 3.30 & 1.60.

From South-Carolina, two measuring 2.25 & 1.25; 3.25 & 1.80.

From Delaware river, two measuring 3.27 & 1.75; 3.10 & 2.20.

From the Schuylkill (yellowish inside), one measures 2.13 & 1.13.

I have a shell from Ohio, said to be of this species, which is a monster, and measures 8.25 & 4.35 inches.

- 10 UNIO CARIOSUS, Say. Dekay's New-York Fauna, Part V, pa. 193, pl. 21, f. 243 and 244 (variety).
- U. id Lam. U. CARIOSUS, Gould.
- U. id Barnes. U. id Lea.

A single specimen from the creek at Buffalo, furnished by Dr. SARTWELL, of Penn-Yan. Not common here, but wide spread over the State.

- 11 UNIO RECTUS, Lam. Dekay's New-York Fauna, Part V, pa. 195.
- U. id Adams. Lea.
- UNIO PRÆLONGUS, Barnes. Hildreth.
- MYA PRÆLONGA, Wood.

A single specimen from the creek at Buffalo, and furnished by Dr. SARTWELL. It is called an Ohio shell.

- 12 UNIO ROSACEUS, Dekay. New-York Fauna, Part V, pa. 192, pl. 29, f. 355 (adult), 356 (young); pl. 40, f. 357 (sexual variety).

The four varieties, found in Seneca lake, were contributed by Dr. SARTWELL. This lake seems to be the only locality; for this species is not to be confounded with the pink variety of *U. luteolus*, Lam., which is noticed in the synopsis of Mr. LEA, under this species.

The following species, chiefly from Ohio, are forwarded for the State Collection.

UNIO NASUTUS, Say. Dekay's New-York Fauna, Part V, pa. 191, pl. 20, f. 239.

U. id Barnes. Gould. Lea.

Potomac river, near Mt Vernon.

UNIO GIBBOSUS, Barnes. Two varieties.

(U. NASUTA, Lam.)

Grand river, below Grand rapids, Mich.

UNIO PUSTULOSUS, Lea. Two varieties. Muskingum river.

UNIO FOLIATUS, Hild. Lea. Two varieties. Muskingum river.

UNIO CORNUTUS, Barnes. Lea. One variety. Muskingum river.

UNIO VENTRICOSUS, Barnes. Lea. Two males and female. Muskingum river.

UNIO PERPLEXUS, Lea. Two varieties. Ohio.

UNIO RETUSUS, Lam. Two varieties. Ohio.

(U. TORSUS, Rafinesque.)

UNIO LACHRYMOSUS, Lea. One young specimen. Ohio.

UNIO CIRCULUS, Lea. Two varieties. Ohio.

UNIO SUBROTUNDUS, Lea. Three varieties. Ohio.

UNIO TRIANGULARIS, Barnes. Lea. One spec. Ohio.

UNIO MULTIRADIATUS, Lea. One spec. Ohio.

UNIO SECURUS, Lea. One spec. Ohio.

UNIO MITANEURUS, Raf. One spec. Ohio.

UNIO CYLINDRICUS, Say. Lea. One spec. Ohio.

UNIO ELLIPTICUS, Lea. One spec. Ohio.

### MARGARITANA, SCHUMACHER. 1817.

The name relates to a pearl, as one species, at least, yields pearls.

1 MARGARITANA RUGOSA, Lea. Two varieties. Genesee river; Erie canal also.

ALASMODON RUGOSA. Dekay's New-York Fauna, Part V, pa. 196, pl. 14, f. 226.

ALASMODONTA RUGOSA, Barnes, 1818. Hild. Adams.

2 MARGARITANA MARGINATA, Lea. One specimen. Ohio.

ALASMODON MARGINATA. Dekay's New-York Fauna, Part V, pa. 196, pl. 14, f. 225.

ALASMODON TRUNCATA, Say.



## 3 MARGARITANA UNDULATA, Lea.

ALASMODON UNDULATA. Dekay's New-York Fauna, Part V, pa. 198,  
pl. 15, f. 227.

A. id Say. A. UNDULATA, Gould.

A. id Barnes. A. id Adams.

One variety, Seneca lake; and one from Crooked lake, sent by Dr. SARTWELL.

## ANODONTA, BRUG.

## 1 ANODONTA GIGANTEA, Lea.

A. GRANDIS? Raf.

This specimen is from Seneca lake, and sent by Dr. SARTWELL. A large species.

## 2 ANODONTA PAVONIA, Lea.

ANODON PAVONIA. Dekay's New-York Fauna, Part V, pa. 203, pl. 11,  
f. 358. (Well described and figured.)

From Crooked lake, and sent by Dr. SARTWELL.

## 3 ANODONTA FOOTIANA, Lea. Not before credited to the State.

Two varieties from Genesee river.

## 4 ANODONTA LEWISII, Lea.

ANODON FLUVIATILIS. Dekay's New-York Fauna, Part V, pa. 203, pl.  
18, f. 234.

ANODONTA FLUVIATILIS, Gould. Adams.

A. CATARACTA, Say. Lamarck.

Three varieties from Genesee river. Taken the 17th Dec., from the canal; the outer gill was swollen with eggs.

## 5 ANODONTA FRAGILIS, Lam. Lea.

Two varieties from Cayuga lake, where it abounds.

## 6 ANODONTA FERUSSACIANA, Lea.

ANODON FERUSSACIANA. Dekay's New-York Fauna, Part V, pa. 200, pl.  
15, f. 230.

One variety from Genesee river. Eggs abundant in the ovaries on the 17th Dec., when taken from the canal.

- 7 ANODONTA SUBCYLINDRICA, Lea. Dekay's New-York Fauna, Part V, pa. 200, pl. 16, f. 229.

One variety from Genesee river.

- 8 ANODONTA EDENTULA, Lea. Dekay's New-York Fauna, Part V, pa. 201, pl. 16, f. 231.

A. AREOLATUS, Swainson.

Two varieties from Genesee river.

- 9 ANODONTA UNDULATA, Say.

ALASMODON UNDULATA. Dekay's New-York Fauna, Part V, pa. 198, pl. 15, f. 227.

A. id Gould. Lea. Adams.

A. PENNSYLVANICA. Lam.

The specimen is from Genesee river.

- 10 ANODONTA CYLINDRICA? Lea.

From the creek at Buffalo.

- 11 ANODONTA BENEDICTENSIS, Lea. Dekay's New-York Fauna, Part V, pa. 204, pl. 18, f. 235.

In Genesee river; and Lake Ontario, near the mouth of the river.

- 12 ANODONTA IMBECILIS, Say. Not described by Dekay.

Erie canal at Rochester; a very delicate shell, two inches or more in length.

APPENDIX.

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**B.**

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L I S T

OF

MINERALS,

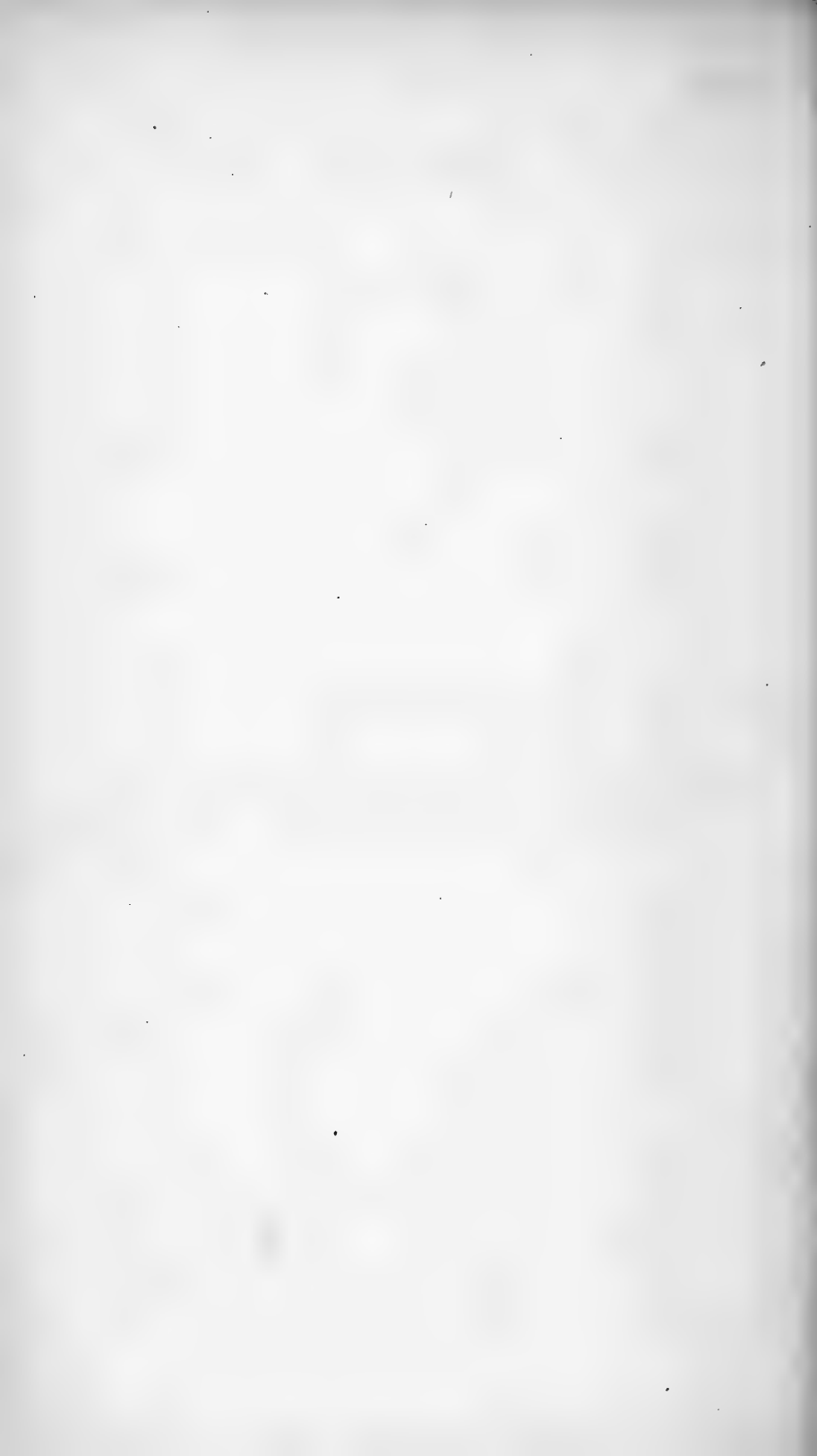
GEOLOGICAL SPECIMENS, AND FOSSILS,

ADDED TO THE

STATE CABINET OF NATURAL HISTORY,

FROM

JANUARY 1, 1855, TO JANUARY 1, 1856.



# MINERALS.

---

From ALEXANDER FITCH, of Carlisle, Schoharie county.

A large and beautiful specimen of LAMELLAR SULPHATE OF BARYTES (Coxcomb spar of *Comstock*), from Cheshire, Connecticut.

From GEORGE PARK, Esq., of Binghamton, N. Y.

A fine specimen of CINNABAR (Sulphuret of mercury), from the Guadalupe mine, near San Francisco, California.

From JACOB GROAT, of Watervliet.

Specimens of MARL, from the farm of the late FRIEND HUMPHREY, situated along the Shaker road, two miles from the city of Albany.

Specimens of PEAT, from the farm of the late FRIEND HUMPHREY, situated along the Shaker road, two miles from the city of Albany.

From J. D. DARLING, of Watervliet.

Specimens of SULPHURET OF IRON, crystallized in cubes.

From JOHN BALL, of Kent county, Michigan.

Two specimens of GYPSUM, from the Grand rapids, Michigan.

From A. D. CHESEBRO, of Guilderland, Albany county.

A STALACTITE, from a cave in the town of Guilderland.

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From B. P. JOHNSON, Secretary of the State Agricultural Society.

A specimen of VOLCANIC SULPHUR (partially encrusted with lava), weighing one hundred pounds; from the sulphur mines of Uبالا, New-Grenada, S. A.

This beautiful specimen was sent by E. J. TOWNSEND, Esq., of New-York, to the Museum of the State Agricultural Society; the directors of which, through their secretary, have kindly placed it in the State Cabinet.

The following is a copy of the paper accompanying the specimen.

“SULPHUR MINES OF UBALA, NEW-GRENADA.

Towards the northeast of Bogota (capital of New-Grenada), is to be found a small village, called Ubala, through which passes the high road that crosses from Bogota to the plains (Llanos) of San Martine; and taking into account the time expended by this route, the said village is about half way, for it takes three days thence to the port of Cabuyaro, and the same time to Bogota. Cabuyaro disembogues a few leagues from the port, on the river Meta (a tributary of Amazon).

The sulphur mine is situated near the village; and throughout an extent of five leagues, sulphur of the same quality has been discovered; and it is probable that a considerable part of the Cordillera, situated thereat, may yield the same product.

The method by which sulphur is procured is very simple. A layer of rich vegetable earth is taken off, under which is found a black gravelly soil, easily removed. This facility, in fact, occasions constant staving in of the earth. At the depth of 6 feet, pyrites (piratas) begin to show themselves; and at that of 12 to 15 feet are found stripes of sulphur, between thin rocks, which are easily extracted by the laborers. The width of said veins varies from a few inches up to three feet. The sulphur found therein presents different aspects: there are pieces of more than 400 pounds, so pure, so transparent, that not a single particle of extraneous matter is to be found therein. Other pieces are encrusted with particles of rock or lava, such as the sample sent, and then they present greater solidity for transportation. At other times, it is found in roundish pieces, weighing some ounces or pounds. Notwithstanding the bad system adopted in exploring the same, there have been weeks wherein six men, with only spades, hoes and crowbars, have taken out 2,500 pounds of sulphur.

The mines are surrounded with thick forests, which yield splendid timber, abundant pasturage, mines of limestone and coal.

Signed, Y. ANTOMESA.”

---

From JOHN GEBHARD JUNIOR, of Albany.

A specimen of CALCAREOUS SPAR, from Ball's cave in the town of Schoharie.

A specimen of FIBROUS LIMESTONE (arragonite), from Ball's cave in the town of Schoharie.

A specimen of SATIN SPAR, from Ball's cave in the town of Schoharie.

From HIS EXCELLENCY GOVERNOR CLARK.

Two specimens of IRON ORE, from the ore beds at Clinton Prison; obtained at the depth of one hundred feet beneath the surface.

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From JAMES RAY, of West-Troy.

A specimen of COKE made from the semi-bituminous coal of the Maryland Coal Measures.

The structure of the grain, and angle of a knot (branch) would render it probable that it is of the coniferous trees of the carboniferous era.

The annular rings, which show the same rate of growth of the pitch pine of Maryland of the present day, would indicate a climate much the same as now.

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From Dr. J. R. ROMEYN, of Keeseville, Essex Co., N. Y.

IRON ORE (three specimens), from the Arnold bed, town of Ausable, Clinton county.

IRON ORE, from the Arnold bed (blue vein), town of Ausable, Clinton county, N. Y., six miles from Keeseville.

IRON ORE, from the Averill ore bed, at Clinton prison, Dannamora, Clinton county, N. Y.

IRON ORE, containing quartz crystals and calcareous spar, from the Averill ore bed, at Clinton prison, Dannamora, Clinton county, N. Y.

---

From JOHN GEBHARD JUNIOR, of Albany.

A box containing twenty-five specimens, collected from the mouth of an extinct crater in the town of Volcano, Calaveras county, California.

The following is a copy of the letter to the donor, which accompanied the specimens.

VOLCANO, September 30, 1855.

J. GEBHARD JUNIOR, Esq.

DEAR SIR—In partial return for the gentlemanly courtesy I have ever experienced on my visits to the Geological Rooms of the State of New-York, while under your supervision; and as a mark of private esteem, allow me to present you the enclosed specimens, collected from the mouth of an extinct crater in this place.

The town of Volcano, where these specimens were collected, is rich in caves, presenting the most singular formations I have ever witnessed; and which will at some future day divide the interest now felt in the gigantic trees and stupendous waterfalls, whose grandeur marks them as wonders of the world.

Owing to the want of time, I have been prevented from pursuing my exploration as much as I could wish; but should the opportunity occur at any future time, I will give you the result of my discoveries. I hope that the accompanying specimens will prove interesting to you.

Yours truly,

J. H. WARWICK.

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From Professor C. DEWEY, of Rochester.

A mass of artificial glomeration, or subcrystallization, formed in the retorts in making illuminating gas.



## GEOLOGICAL, INCLUDING FOSSILS.

## DONATIONS.

From the Hon. MOSES EAMES, of Rutland, Jefferson county, N. Y.

ENDOCERAS PROTEIFORME, Hall. Palæontology of New-York, Vol. I, pa. 216, pl. 57, f. 1.

This specimen is from the Trenton limestone, and was obtained in the town of Cape Vincent, Jefferson county, N. Y. The fragment is two feet long; and seven inches in diameter at the greater, and four and a half inches in diameter at the lesser end. The siphuncle, which is well defined at the lesser end of the specimen, is sub-marginal, and two and one fourth inches in diameter.

The surface of the fossil is covered with impressions of crustacea, bivalve shells, corallines, &c., characteristic of the Trenton limestone. Among them, the most important and interesting is the matrix of a trilobite belonging to the genus *Acidaspis* of *Murchison* (*Odontopleura* of *Emmrich*); it is three-fourths of an inch in length, and distinctly exhibits the fimbriæ, on the outer margin of the maxillæ; the elongated spines at the posterior angles of the cephalic shield; the short spines at the sides of the body, produced by an elongation of the lateral articulations; and the spinous margin of the caudal shield.

Professor JOHN LOCKE, in the American Journal of Science (Vol. 44, pa. 346, and also in vol. 45, pa. 223), describes a new trilobite, obtained in the rock formation near Cincinnati (which is equivalent to the Trenton limestone of New-York), as the *Ceraurus crosotus*; and with which I consider our specimen identical.

An examination of Professor LOCKE's description and drawings will at once determine that his trilobite is not a *ceraurus*, but must either be placed in the genus *Acidaspis* of Murchison, or *Odontopleura* of Emmrich; both of which may be regarded as synonyms, as the characteristics of either genus will cover the specimen.

The question then occurs, Shall the genus of Murchison or Emmrich be adopted? M. BARRANDE has proved that Murchison's name has priority in regard to time; this fact decides the question in favor of Murchison. I also prefer the name of Murchison, for the following additional reasons:

1st. Professor TIMOTHY A. CONRAD, the Palæontologist to the New-York survey, was the first American author who adopted Murchison's genus; and in his annual report on the palæontology for the year 1839 (third report, pa. 204), describes a true *Acidaspis* (*Acidaspis tuberculatus*) as occurring in the Delthyris Shaly limestone; which is the first notice of the occurrence of Murchison's genus on the western continent.

2d. Professor JAMES HALL, the present State Palæontologist, adopts Murchison's genus; and in volume 1 of the New-York Palæontology, pa. 240, describes a trilobite as the *Acidaspis trentonensis*, from the rock formation at the Bay of Quinte on Lake Ontario, which, from its associated fossils, he considers equivalent to the Trenton limestone.

3d. Professor SHUMARD, the Palæontologist of Missouri, also adopts Murchison's generic name; and in the second annual report of the geological survey of Missouri (1854), part 2, pa. 200, describes a new species, *Acidaspis halli* (in honor of Professor HALL), from the Cape Girardeau limestone, which the geologists of Missouri consider as belonging to Murchison's Upper Silurian system, and to the lower Helderberg group of the New-York geologists.

Adopting the genus of Murchison, I therefore propose for Professor LOCKE's specimen the name of *Acidaspis crostus*, Locke; retaining Professor LOCKE's specific name of *crostus* (from the Greek word signifying *fringed*), as descriptive of the fossil, and in accordance with the established rules of scientific nomenclature.

In accordance with the preceding view of the subject, our fossil is catalogued,

ACIDASPIS CROSOTUS, Locke. *The Fringed Acidaspis.*

From the Trenton limestone, in the town of Cape Vincent, Jefferson county, N. Y.

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From Professor CHESTER DEWEY, of Rochester, N. Y.

A new fossil (FUROID?) undescribed. From the Medina Sandstone.

From DARIUS WHEELER, of Albany.

SILICIFIED WOOD, from Eldorado county, California. Mr. Wheeler asserts that this fragment was broken from a silicified tree eighteen inches in diameter, and twenty-five feet in length, lying on the side of a hill 250 feet high, and about one-third of the distance from the base upwards.

From the Hon. JAMES S. CAMPBELL, of Cherry-Valley, Otsego county, N. Y.

Four specimens of GLAZED SLATE, from the Marcellus shale; obtained from the farm of the Hon. James S. Campbell, of Cherry-valley, Otsego county. These specimens, at the request of the donor, are placed in the case containing the minerals, &c. of Otsego county.

From the Hon. SILAS M. BURROUGHS, of Medina, Orleans co., N. Y.

A slab of MEDINA SANDSTONE, covered with the *Arthropycus harlani*, (fossil plant), of HALL. Palæontology of N. Y., Vol. II, pa. 5, pl. 1, f. 1; pl. 2, ff. 1a, 1b, 1c.

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From IRA SAYLES, Principal of the Rushford Academy, at Rushford, Allegany county, N. Y.

A box of Geological Specimens, taken mostly from the drift formation, in the vicinity of Rushford, Allegany county, N. Y.

The following extract is taken from a letter accompanying the specimens, directed to Dr. T. ROMEYN BECK; dated at Rushford, August 15, 1855:

DEAR SIR—This morning I send to your address a box of geological specimens, taken mostly from our drift: there are some, however, from the rock in place. I have not sought out glaring specimens; for I deem them of no more account, geologically, than those of a humbler sort.

We have some quite large boulders, but they are not very abundant. I saw some yesterday which would undoubtedly weigh twenty tons. All these larger ones are Felspathic Granite, with large crystals of felspar in a matrix of massive quartz, with very little mica.

Of the specimens I send you, there is one of a peculiar kind, evidently with an organic nucleus : one is from a mineral spring in our neighborhood ; and one is from a swamp, the earthy oxide of manganese, generally known under the name of *wad*.

I have not sent many besides these, from the rock in place. At some other time, I may send one wholly made up from this. We have some scattering fragments of the old red sandstone on the tops of our hills. In the eastern towns of this county, it is sufficient to form quarries on the hill tops.

Very respectfully,

IRA SAYLES.

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BY PURCHASE.

A large slab of MEDINA SANDSTONE, covered with fragments of branches of a fossil plant; *Arthrophyucus harlani* of HALL. See Palæontology of New-York, Vol. II, pa. 5, pl. 1, ff. 1; pl. 2, f. 1a, 1b, 1c.

TOOTH OF A FOSSIL ELEPHANT. The locality from which it was obtained, is not known.

APPENDIX.

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C.

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ADDITIONS

TO THE

**HISTORICAL AND ANTIQUARIAN COLLECTION,**

IN THE

STATE CABINET OF NATURAL HISTORY,

FROM

JANUARY 1, 1855, TO JANUARY 1, 1856.



## HISTORICAL AND ANTIQUARIAN COLLECTION.

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### DONATIONS.

FROM THEODORE S. STICKLER, OF PORT SCHUYLER, ALBANY COUNTY, N. Y.

A mass of GLASS BEADS, cemented together by heat. Taken from the ruins of the great fire in the city of New-York, which occurred on the fifteenth day of December, 1835.

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FROM A. D. CLARK, ESQ., OF TICONDEROGA, BY J. COLLINS WICKS.

AN IRON AXE, found about two feet below the surface on the inside of the intrenchment upon "Mount Hope," Ticonderoga. This intrenchment constituted the outwork of Fort Ticonderoga.

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FROM WINSLOW BATES, OF CALDWELL, WARREN CO., N. Y.

A SPADE dug up near the Fort "William Henry" grounds, with the indentation of a bullet on the same.

---

FROM AARON WEDEMAN, OF BETHLEHEM, ALBANY CO.

AN INDIAN RELIC, found in the town of Bethlehem, Albany county, N. Y. This beautiful relic is composed of a compact variety of green slate. It is made in the form of a hatchet with two edges, with a hole in the center for the insertion of a handle; length four inches, width one and a half inches. Relics of similar form have been generally called stone hatchets. SQUIER and DAVIS, in their work on the Ancient Monuments of the Mississippi valley (Vol. one of the Smithsonian Contributions to Knowledge), in speaking of similar relics, justly remark, "It is clear, nevertheless, both from their form and material, that they were not designed for use. They may be regarded as having been intended for ornament or display."

FROM JOHN E. STEARNS, OF CASTLETON, RENSSELAER CO.

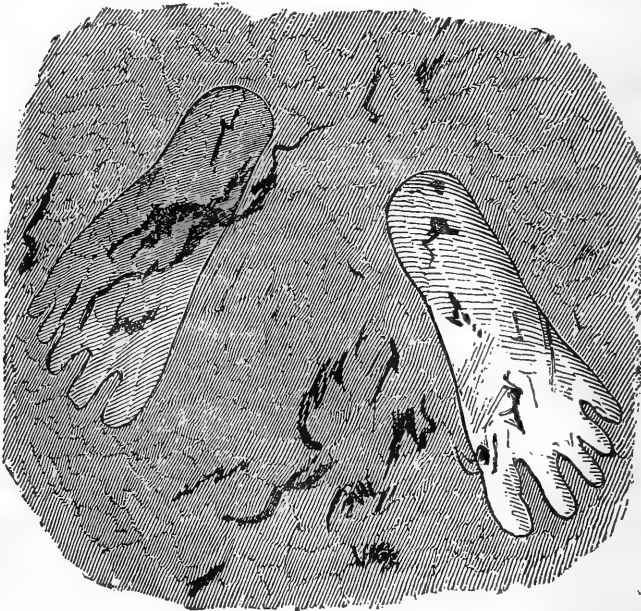
A BILL of the continental currency for sixty dollars, issued "according to a resolution of Congress of the 14th January, 1779."

FROM PROFESSOR DAVID DALE OWEN.

A plaster cast of the impressions of TWO HUMAN FOOT-PRINTS, taken from the rocks on the banks of the Mississippi, at the city of St. Louis.

This cast was received from Professor OWEN several years since; but from inadvertence, the donation has not been heretofore acknowledged.

The annexed woodcut (reduced in size from Professor OWEN'S drawing), will give a correct idea of the appearance of these foot-prints.



The deep interest manifested by the public, when the discovery was first announced; the conflicting views of various authors as to the true cause of their origin; and the doubt that still exists in many minds, have induced us to make the following extracts from an able paper ("Regarding Human Foot-prints in solid limestone"), which originally appeared in Silliman's



Journal, from the pen of Professor DAVID DALE OWEN ( the donor of the specimen ). The great length of the article precludes our copying of it entire.

“The occurrence of representations of human feet in solid rock, has lately excited considerable attention, both in this country and in Europe. The intimate connection of the subject with those great problems, the age of our race, and the gradual peopling of our globe with animated beings, invests it with additional interest, in the eyes not only of the scientific explorer, but of the general reader also.

“Mr. SCHOOLCRAFT, in the year 1822, first called attention, through the columns of Silliman’s Journal, to these impressions; the German Professor LEONHARD, of Heidelberg, discusses the matter in his popular lectures, now in the course of republication in this country, by Professor F. HALL; Dr. MANTELL, in his “Wonders of Geology,” also speaking of the same foot-prints, says that he has requested Professor SILLIMAN to ascertain the nature and age of the rock in which they appear; and a correspondent, in a recent number of this (Silliman’s) journal, calls for information on the same subject.

“These various observations and enquiries, and all others of a similar character which have met my eye, expressly refer to a single specimen; the only one, it would seem, hitherto discovered; namely, a slab of limestone originally found on the western bank of the Mississippi river at St. Louis, quarried for Mr. FREDERICK RAPP in the year 1819, and by him removed to the German settlement of Harmony in Indiana, where it became a frequent object of visit and examination among curious travelers. There SCHOOLCRAFT saw and described it; his article, above referred to (and from which MANTELL tells us he derives his information), commences thus :

“‘I send you a drawing of two curious prints of the human foot in limestone rock, observed by me last summer at Harmony, on the Wabash; together with a letter of Col. BENTON on the same subject. The slab containing these impressions was originally quarried on the west bank of the Mississippi river at St. Louis, and belongs to the older floetz range of limestone, which pervades that country to a very great extent.’ LEONHARD, as a note by his editor reminds us, refers, also, as his sole authority, to the article here quoted, and of course to the specimen in question. That specimen is now in my possession; and inasmuch as it has attracted the observation even of foreign geologists, and has given rise to not a little discussion and contrariety of opinion among scientific men, I feel called on to contribute what information I possess relative to its history and de-

scription; more especially as I have recently obtained evidence sufficiently conclusive touching its precise geological character.

“The best information I can furnish in regard to the exact spot of its original location, and the circumstances by which it came into the possession of Mr. RAPP, is to be found in the subjoined extract from a letter written by the gentleman under whose inspection it was quarried, then a resident of St. Louis, but now of Cincinnati, Mr. PAUL ANDERSON. This letter is dated October 11, 1841, and is a reply to one which I addressed, in the course of last autumn, to Mr. BAKER, Mr. RAPP’s man of business, who was a resident of Harmony at the time of the purchase, and in which I had requested of him to procure for me what information he could on the subject.

“Mr. ANDERSON, writing to Mr. BAKER, says :

“The letter of Mr. DAVID DALE OWEN, of the 26th ult., enclosed in yours of the 8th inst., was duly received by me here.

“Well sir, as to the limestone slab that Mr. FREDERICK RAPP obtained of me sometime in 1819 at St. Louis, I will tell you its history. The year after I was located in St. Louis, during the extreme low water of the Mississippi, I was shown the imprint of human feet, that was in the limestone rock on the *very margin* of the river, and which had been only seen by the old inhabitants there very few times; as it was said by them that it was not more than once in the period of ten years or so, that the river fell to its then stage. This rock lay about opposite the center of the city proper, and seemed to have been polished smooth by the attrition of the water. There was no rock lying on it, as it was the lower ledge of the stratified limestone that reached, by steps, to the bluff of limestone rock that ranged along the foot of the river lots of the city. This bluff of stratified rock was seemingly from ten to twenty feet high, and from twenty to forty yards from the margin of the river at extreme low water mark, all along the city. This bluff has been quarried out, and a fine range of three story stone warehouses erected there on the river front. A street, too, of sixty feet wide has been laid off, besides a graduated macadamized wharf on the outside of that again to low water mark.

“A Mr. JOHN JONES, who claimed a sort of ownership in the rock as being the first discoverer of it *that season*, was employed by me to cut out the slab for Mr. FREDERICK RAPP, who was then at St. Louis on a business visit. I paid JONES (to the best of my recollection) one hundred and eighty dollars for the slab, and shipped it around to New-Harmony, to Mr. RAPP.’

“These extracts fully explain the circumstances under which the slab was originally obtained by Mr. RAPP. When that gentleman, in the year

1824, sold the New-Harmony estate to my father, the slab also came into my father's hands, and ultimately into the possession of the late WILLIAM MACLURE. After his decease, it was presented to me by his executors, and is now preserved in my museum of natural history at New-Harmony.

“This slab itself is a ponderous mass of solid limestone, weighing upwards of a ton. Although fossils had been observed in the vicinity of its original location, yet until lately no remains had been discovered on the specimen itself. In preparing to remove it, however, from Mr. MACLURE'S residence to my laboratory, observing a horizontal fissure which extended entirely across the rock, I split off by the aid of wedges a continuous layer, some two or three inches thick, from its inferior surface. This operation, besides materially facilitating its transportation, discloses, as I had hoped it would, some familiar fossil shells; and I subsequently discovered a good many more by reducing the detached portion into small hand specimens. I was thus enabled definitely to determine the age of the rock.

“The fossils obtained (four species of *Producta*), proved on examination to be the same species which I had often previously observed at Leavenworth, in Indiana, on the Ohio river, and elsewhere, in a rock, the exact geological position of which I had already satisfactorily ascertained. This stratum lies from ten to twenty feet below the lowest members of our true coal measures, and is considered the equivalent of the mountain limestone of Europe.

“So much for the age of the rock in which these foot-prints are found. The question next presents itself, are they true fossils, or are they the work of art?

“To aid in the solution of this question, I have given (in the plate accompanying this article) a correct representation of the slab, with the foot-prints and other marks, as they at present appear. That during the twenty-two years since it has been quarried, no material or appreciable alteration seems to have occurred, may be inferred from the following communication from a gentleman now residing here, to whom I am indebted for many valuable additions to my geological cabinet, and who visited and critically examined the specimen sixteen years ago, in company with several distinguished naturalists:

““In reply to your enquiries regarding the now famous limestone slab with its human foot-prints, I have to say, that in the year 1826, I visited and examined it repeatedly and minutely, and have a perfectly distinct recollection of its appearance at that time. I then compared the foot-prints with my own, placing my naked foot on the impressions. They correspond very accurately both in outline and in the depressions, answering to

the principal muscles of the foot and toes, except that the toes were somewhat more widely spread than mine. Mr. MACLURE, Dr. TROOST, SAY, and Mr. LESUEUR, then residents of Harmony, examined the rock at the same time. They all agreed in opinion as to the artificial origin of the tracks, with good reason, I think; for the task seems to me more easy than the fabrication of many of our native vases and other antiquities.

“I can say with confidence that there is no perceptible difference between the appearance of the tracks now, and in 1826, when I first saw them; and I find that others, who were then in the habit, like myself, of seeing the specimen daily, coincide with me in this opinion.

SAMUEL BOLTON.’

“Messrs. MACLURE, SAY, TROOST, and LESUEUR, appear thus to have agreed as to the artificial origin of these foot-prints; yet among the various writers who have broached the subject, others have expressed a very different opinion.

“Mr. SCHOOLCRAFT, in the article already referred to, and which first introduced the matter to the scientific world, expresses his unqualified conviction that they are true fossils; and remarks, that “every appearance will warrant the conclusion, that these impressions were made at a time when the rock was soft enough to receive them by pressure; and that the marks of feet are natural and genuine. Such was the opinion of Governor CASS and myself, formed upon the spot, and there is nothing that I have subsequently seen to alter this view; on the contrary, there are some corroborating facts calculated to strengthen and confirm it.

“The learned MANTELL, the distinguished geologist of southeastern England, coincides with SCHOOLCRAFT as to the true fossil character of the foot-prints; but though he expressly refers to SCHOOLCRAFT’S article, he seems to have overlooked the character of the rock; for he speaks of the impressions as being made in *sandstone*. The passage occurs in his “Wonders of Geology,” already referred to, at pa. 76, where he has copied SCHOOLCRAFT’S drawing of the foot-prints.

“After giving the plate, he adds: ‘The above figure is an exact copy of the original drawing, and exhibits the impressions of the two corresponding human feet, placed a short distance from each other, as of an individual standing upright, in an easy position. The prints are described as presenting the perfect impress of the feet and toes, exhibiting the form of the muscles, and the flexures of the skin, as if an accurate cast had been taken in a soft substance. They were at first supposed to have been cut in the stone by the native Indians, but a little reflection sufficed to show that they were beyond the efforts of those rude children of nature; since

they evinced a skill and fidelity of execution, which even my distinguished friend, Sir FRANCIS CHANTREY, could not have surpassed. No doubt exists in my mind, that they are the actual prints of human feet in soft sand, which was quickly converted into solid rock by the infiltration of calcareous matter.

“With opinions so variant before me, and such names arrayed on either side of the question, it is with diffidence that I shall proceed, after describing the slab in my possession, to venture my opinion as to the probable origin of the impressions it contains; yet I must be permitted to remark, that I am unable fully to endorse the unqualified expressions of admiration in regard to the matchless workmanship and inimitable fidelity of execution which the inspection of these foot-prints has called forth in various quarters. I may be supposed to regard the specimen which is the subject of these eulogiums, certainly with no unfavorable eyes. To find myself the possessor of a fossil unique in the cabinets of Europe or America, or even of a specimen of aboriginal sculpture that should put to shame the best efforts of CHANTREY’s chisel, was a prospect calculated to quicken my perceptions of its merits and beauties, or to bias my judgment in favor of its genuine character. Nevertheless, after the most critical inspection, I regret to be impelled to the confession, that I see no creditable display of anatomical knowledge or artistical skill; nothing more than we may fairly attribute to the observant and ingenious Indian, dependent for his very life, as the forest warrior daily is, on an intimate and familiar acquaintance with tracks of every description, and more especially, with those of his own race. The representation is, indeed, easy and natural; at the heel, at the ball of the foot, at the outer edge of the sole opposite the instep, the impressions of the muscular elevations are given with fidelity, yet without any delicate details, minute lines of demarcation between the muscles, flexures of the skin or similar minutæ.

“The appearance and dimensions of the foot-prints coincide otherwise with SCHOOLCRAFT’s description of them. The greatest depth of the impression is about one-sixth of an inch. The rock, as already stated, is a very compact limestone of a gray color, and its general surface has been ground down level, and even partially polished by the attrition of sand and water. The polish has extended to the impressions equally with the rest of the slab, and gives to them a smooth and finished appearance.

“After a close inspection of the slab itself, a careful examination into its geological position, age, and origin, and a partial review of the arguments of the various writers already quoted, I have come to the conclu-

sion, that the impressions in question are not fossils, but an intaglio of artificial origin. This opinion is based on the following considerations :

1st. Because the foot-prints are not continuous, but isolated.

2d. Because (as it would seem) this is a solitary instance of human foot-prints in solid limestone.

3d. Because of the difficulty in conceiving the sudden consolidation of compact limestone rock, after having received, while in a plastic state, such impressions.

Lastly, and chiefly, because of the age, nature, and position of the rock, and because no human remains whatever have hitherto been discovered in any similar formation.

“The isolated position of our foot-prints affords a strong presumption against their fossil origin; and we can hardly imagine under what circumstances a man could impress, thus evenly and naturally, a single pair of foot-prints on a soft and yielding surface, without leaving thereon other traces of his steps.

“The limestone stratum containing them is not a partial bed, but an extensive layer, necessarily deposited at one and the same time. There seems, therefore, every probability that other foot-marks would have been discovered on adjacent parts of the rock, had those under consideration been actually made by human feet in plastic calcareous matter.

“If the specimen in my possession be unique of its kind, that circumstance also is strong evidence against its fossil origin; and it would appear that it is so. Every writer, American or European, who treats of impressions of human tracks in solid rock, alludes to the specimen which forms the subject of the present article; all expressly referring to the St. Louis locality, and apparently unacquainted with any other. Yet we have already seen, that in that vicinity, none but the foot-prints in my possession have been discovered.

“But all these arguments are weak, compared with that based on the origin, position and age of the rock under consideration, and on the fact, that no human remains of any description have ever been discovered in any similar formation.

“We have ascertained that the organic remains taken from the slab itself are marine shells. We find, moreover, that it is overlaid by other beds of limestone containing fossils, also the former inhabitants of an ancient ocean. The inference is inevitable, that these various beds were deposited at the bottom of the sea. But unless we imagine the stratum containing the foot marks to have been raised from the bed of the ocean, while still in a plastic state, to have received the impress of the human foot,

and to have been again submerged, ( the tracks remaining uneffaced until gradually covered by other beds of limestone ), how can we even conjecture that these prints were impressed on the nascent rock ?

“ No remains of man or his work have ever yet been found, except in the most recent deposits. Yet the limestone composing our slab is of immense antiquity ; anterior, even to the coal formation. Between this ancient limestone and the recent one of Guadaloupe, as well as all other rocks in which have been detected any traces of man or his handicraft, there intervene six great geological formations : the coal measures, the new red sandstone, the lias and oolite, the chalk, tertiary, and the diluvium. These deposits form a geological series commonly three or four thousand feet in thickness, and embrace six vast and strongly marked epochs, during each of which, distinct races of animals have successively arisen, existed, and become extinct. The time necessary to these changes we can hardly conceive, much less calculate. Add the supposition usually entertained by geologists ( based on the gigantic and ultra-tropical vegetable growth necessary to produce the superincumbent beds of coal ), that the temperature of the globe and its atmosphere during the deposition of these secondary formations was unfit for animals with lungs, and the idea of a human fossil existing in ancient limestone must appear at variance with the best ascertained facts which the industry of the modern geologist has supplied to us, and with the most legitimate inferences to be deduced therefrom. Nothing less than some fossil phenomenon of a character so unequivocal that its origin admits of but one explanation, ought, under these manifold difficulties and improbabilities, to win our confidence or command our belief.

“ The slab which is the subject of these enquiries was quarried, it will be recollected, from a ledge of rock at a point on the very edge of the stream when at its lowest stage. The present site of St. Louis was a common gathering place of the neighboring Indians, as the adjacent mounds abundantly testify. May we not, then, with some degree of confidence, hazard the conjecture, that our impressions were an aboriginal record of extreme low water, as observed by the Indian race, at their favorite resort on the banks of the Father of Waters—their own unequalled and magnificent *Me-scha-si-pi?* ”

FROM JOHN TEN EYCK, OF THE ALBANY EVENING JOURNAL.

A sheet of the PAPER (water marked), which was made for the Bank of Albany, in the year 1792; and on which all the bills of the bank, from that time to the year 1855 (when it had all been used), were printed.

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FROM BARNET C. HUMPHREY, OF THE CITY OF ALBANY.

A sheet of the BILLS (in blank), of the "Syracuse Company," of which the late William James was president.



# APPENDIX.

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**D.**

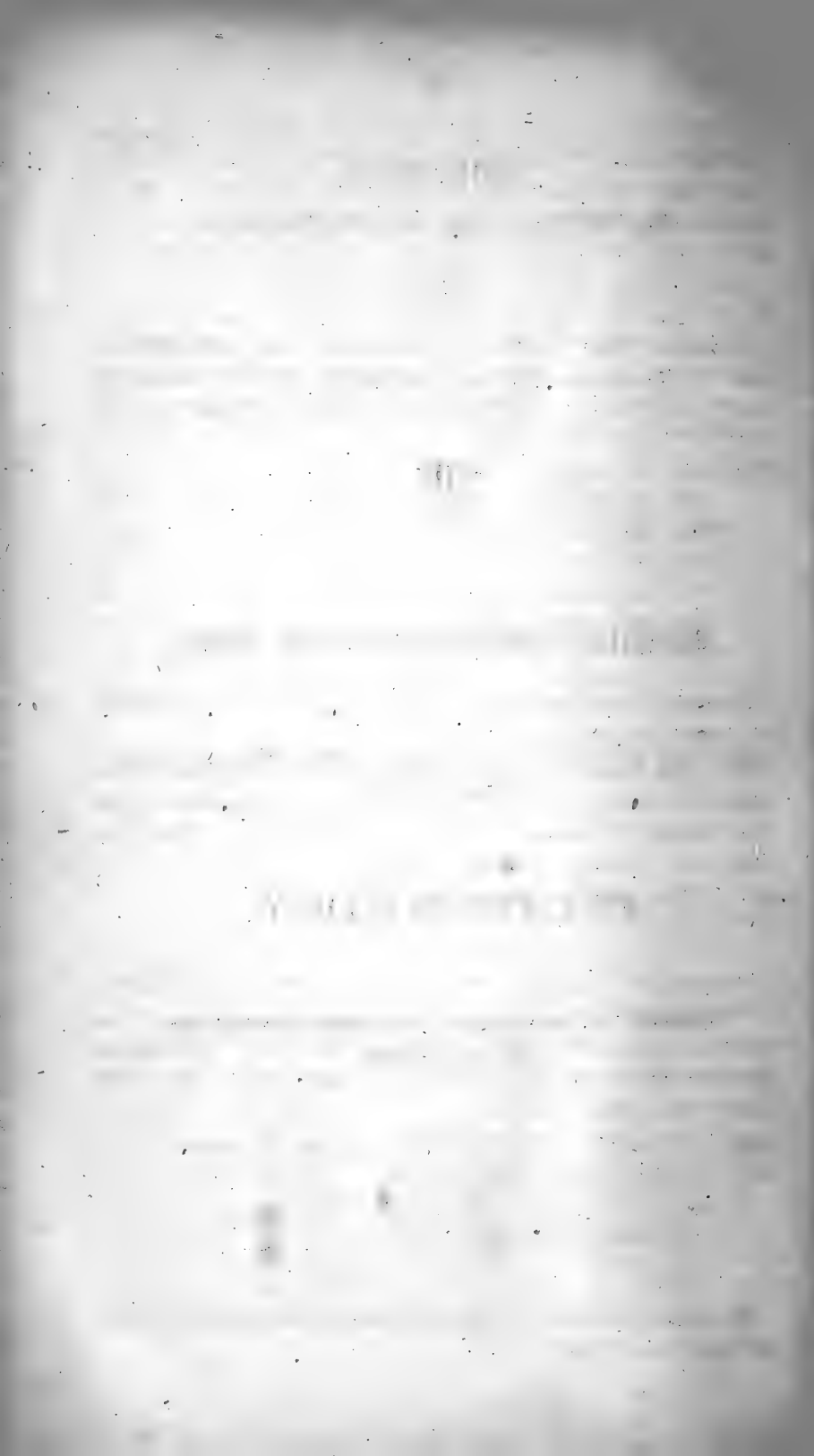
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MATERIALS BELONGING TO THE STATE,

WHICH ARE INTENDED TO BE USED IN COMPLETING THE PUBLI-  
CATION OF THE

PALÆONTOLOGY,

Received into the Geological Rooms, since the first day  
of January 1855.



## DEPARTMENT OF PALÆONTOLOGY.

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RECEIVED, March 3, 1855, of Richard H. Pease, three thousand printed impressions each, from Plates 66, 67, 89, 90, 105 and 116, for the third volume of the Palæontology. The number of figures on the several plates is as follows, viz :

Plate No. 66, Upper Pen. Limestone,	11 figures.
No. 67, Upper Pen. Limestone,	12
No. 89, Oriskany Sandstone,	7
No. 90, Oriskany Sandstone,	7
No. 105, Oriskany Sandstone,	6
No. 116, Oriskany Sandstone,	4
Total,	47

The paper on which the preceding plates are printed, weighs six hundred and seventy-four pounds.

RECEIVED, March 10, 1855, of John E. Gavit, three thousand printed impressions each, from Plates 34 and 38, for the third volume of the Palæontology. The number of figures on the two plates is as follows, viz :

Plate No. 34, Shaly Limestone,	49 figures.
No. 38, Shaly Limestone,	49
Total,	98

The paper on which the preceding plates are printed, weighs two hundred and ten pounds.

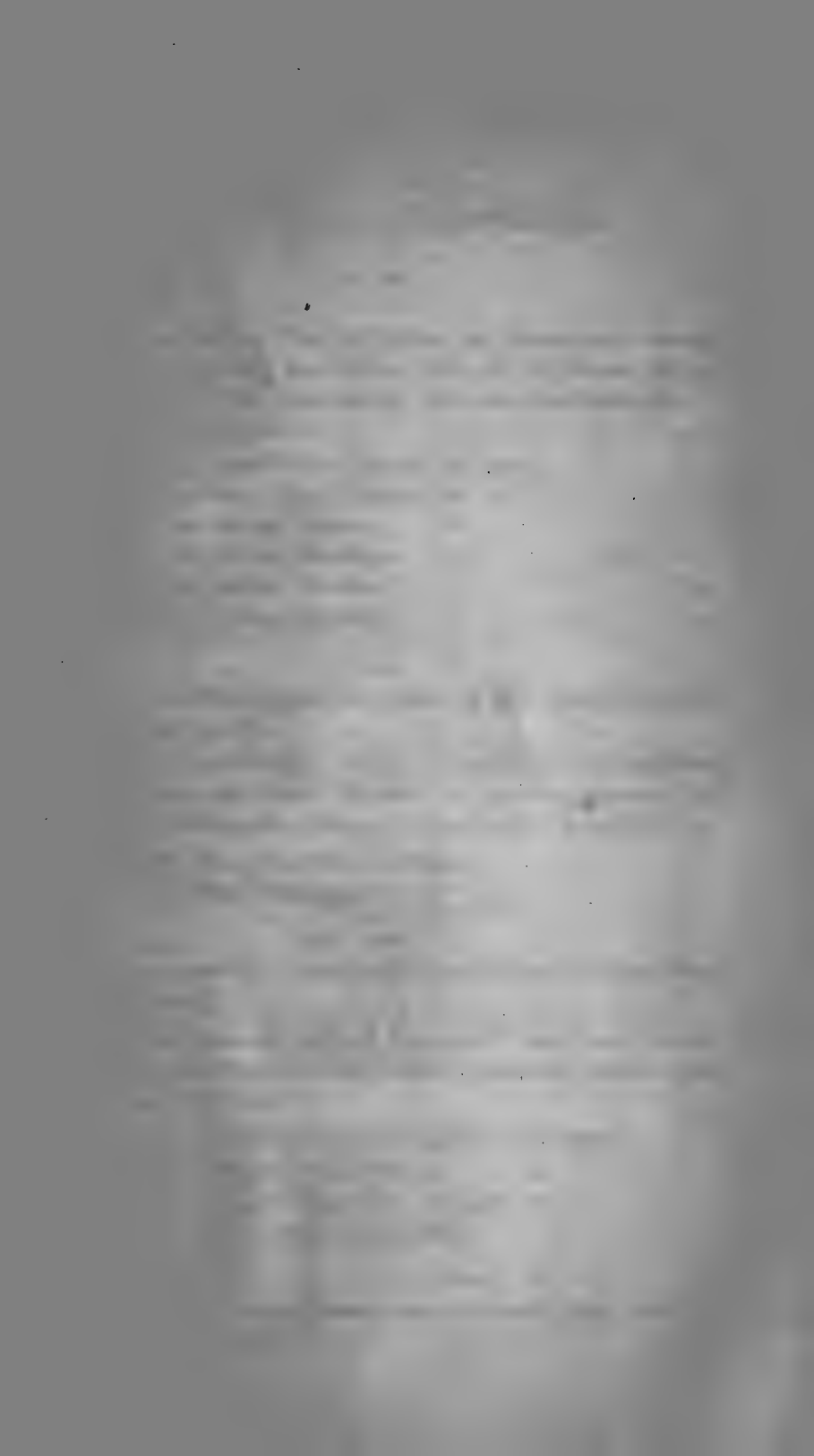
RECEIVED, August 31, 1855, of Richard H. Pease, three thousand printed impressions, from each of the following plates, for the third volume of the Palæontology, viz :

Plate No. 54, Tentaculite and Pent. Limestones,	26 figures.
No. 55, Delthyris Shaly Limestone,	21
No. 65, Shaly and Upper Pen. Limestones,	11
No. 68, Upper Pentamerus Limestone,	7
Total,	65

The paper on which the preceding plates are printed, weighs four hundred and seventy-two pounds.

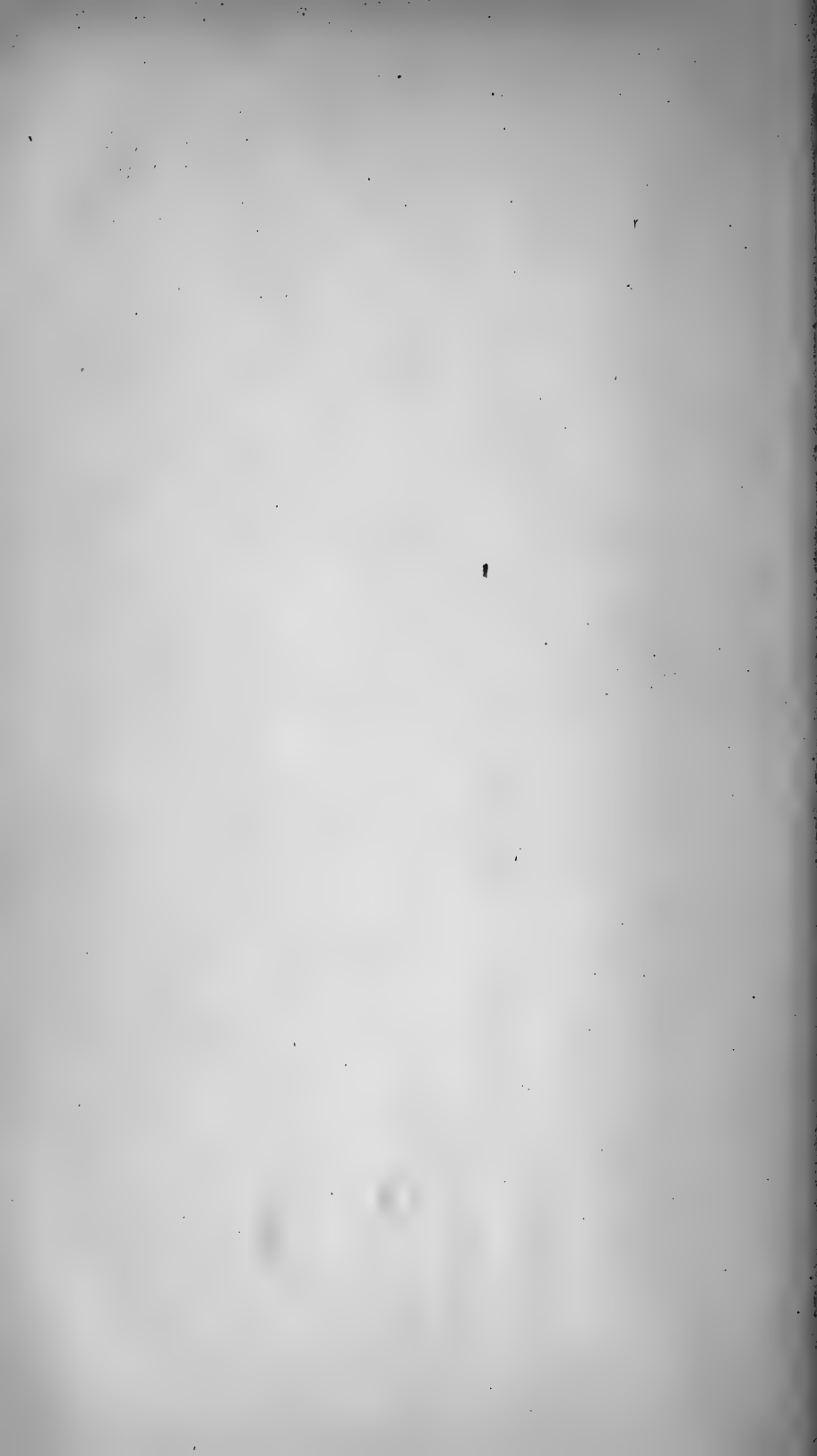
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THE END  
OF THE WORLD

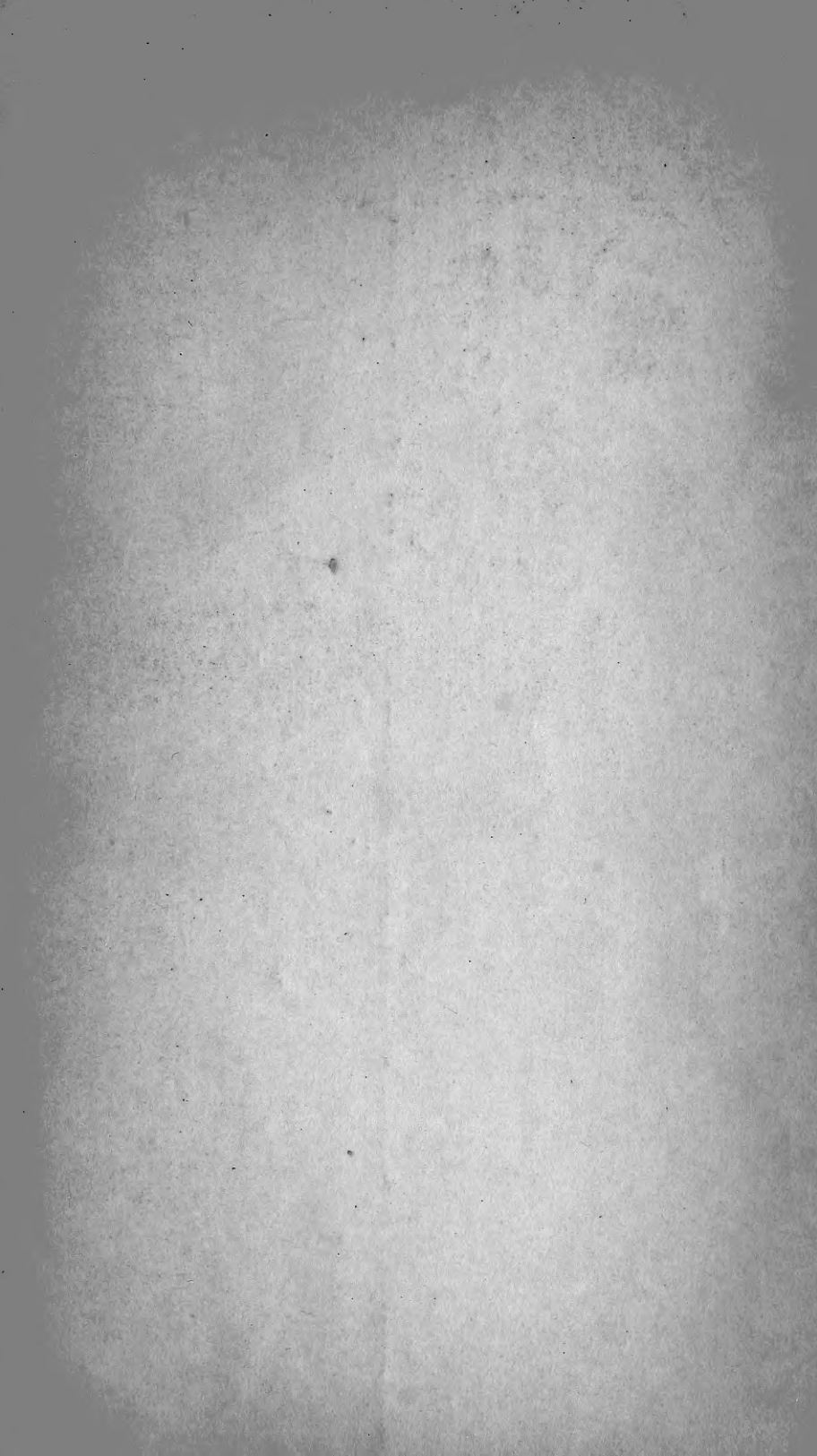


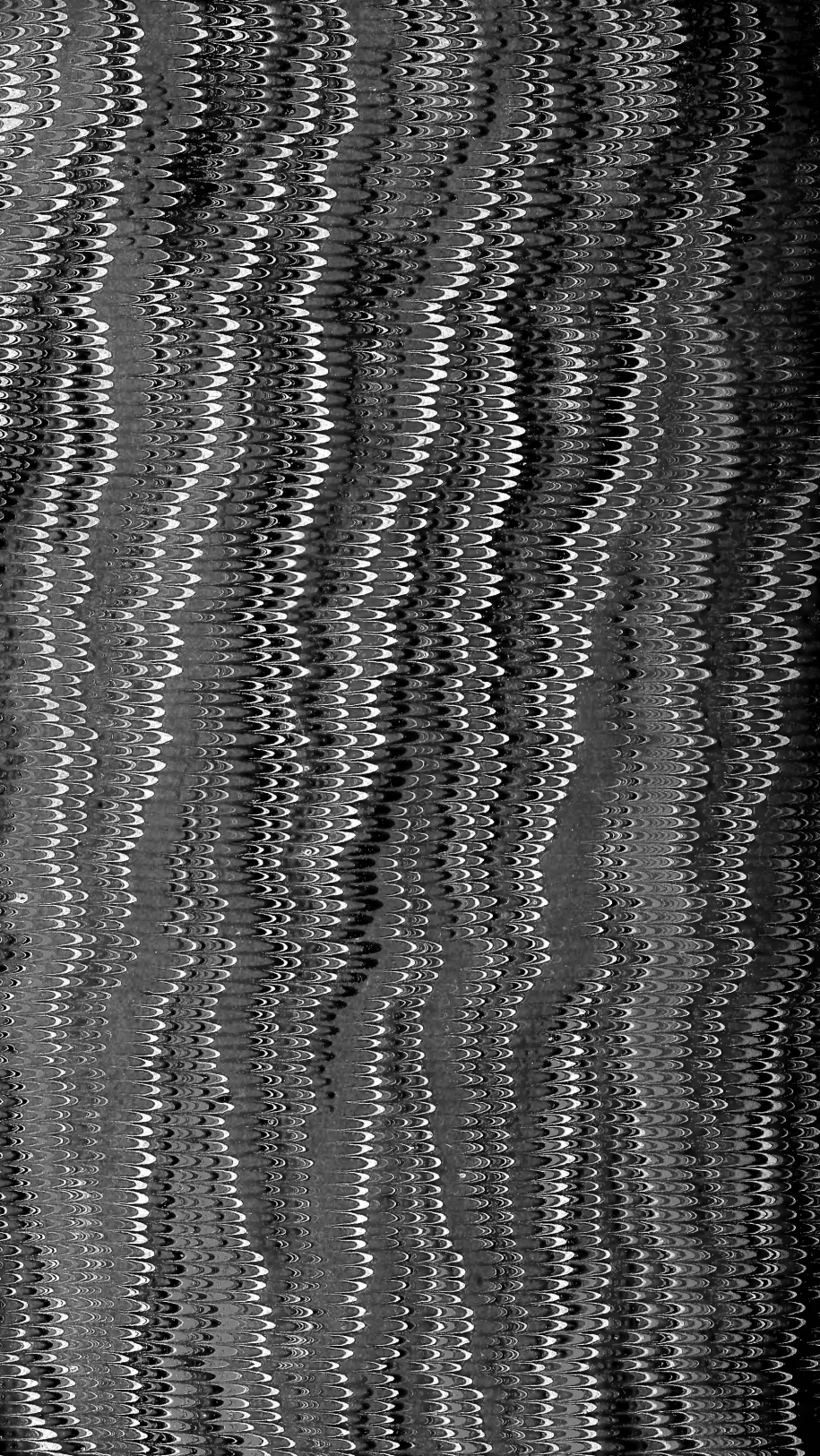


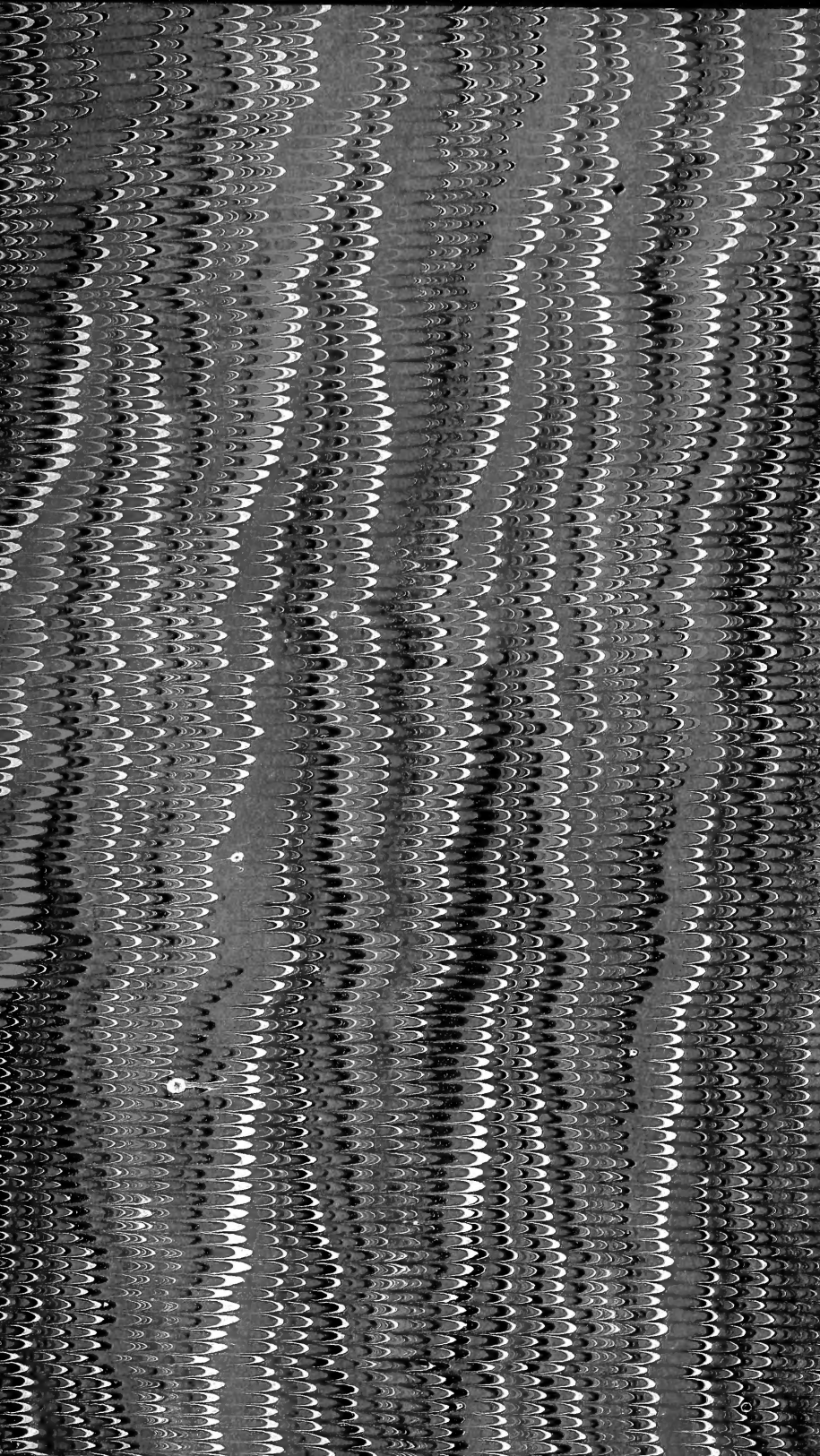












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