Mr. Horace Gray, Jr. was nominated for election as a member of the Society, by Mr. Dillaway.

ADDITIONS TO THE LIBRARY.

Plates to Audubon's Quadrupeds of North America, Nos. 91 to 95. *Subscribers.*

American Quarterly Journal of Agriculture and Science, Vol. IV. No. 2. 8vo. New York. *Editors.*

Proceedings of the Academy of Natural Sciences, Vol. III. Nos. 4, 5. 8vo. pamph. Philadelphia. *The Academy.*

Caricis Species Novæ vel minus cognitæ. Auctore Francisco Boott. 4to. pamph. London, 1846. *Author.*

January 6, 1847.

Dr. C. T. Jackson, Vice President, in the Chair.

Dr. Gould gave descriptions of the following species of Partula, Pupa, and Balea, collected by the Exploring Expedition.

PARTULA CONICA. Testa elongato-conica, interdum sinistrorsa, flavida vel castanea, leviter striata et lineis crebris volventibus decussata, latè perforata: spira elevata, acuta, anfr. 6 ventricosis, ultimo permagno; suturâ impressâ, albidâ: apertura obliqua, ovalis; peristomate albo vel rosaceo, latè reflexo, sub-planulato. Long. $1\frac{1}{10}$, lat. $\frac{11}{20}$ poll. *Hab.* Samoa Islands, Raraka Island.

Larger than any species hitherto described, and resembling *Bulimus lævus* in form. It may possibly be P. *bulimoides*, Lesson.

PARTULA ZEBRINA. Testa variabilis, ovata, tenuis, alba, flava vel fulva, plerumque strigis longitudinalibus flexuosis albis variegata, spiraliter tenuistriata, umbilico rimato perforata: spira anfr. ad 5 rotundatis, ultimo ventricoso: apertura elliptica, peristomate albo, latè reflexo, planulato; plicâ columellari magnâ. Long. $\frac{8}{10}$, lat. $\frac{1}{2}$ poll. *Hab.* Tutuilla, Samoa Islands.

A rather large and very fine species, more ventricose than

others, and distinguished by its perfectly flattened peristome, as well as by its variegated coloring and revolving striæ.

PARTULA PUSILLA. Testa parva, elongata, conica, polita, albido-cornea, perforata: spira acuta, anfr. 6 convexis, supernè tabulatis: apertura sub-quadrata, posticè lamellâ intro-volvente instructa; peristomate reflexo, dextrorsum sinuato. Long. $\frac{3}{20}$, lat. $\frac{3}{40}$ poll. *Hab.* Matea Island, under stones.

This little species bears all the characters of the group, and is by far the most minute species yet described.

PUPA (Vertigo) TANTILLA. Testa minima, sub-ovalis, albida, perforata: spira obtusa; anfr. 4 convexiusculis, supernis subclathratis, ultimo exiliter rugoso-granulato: apertura sub-rotunda, peristomate everso; fauce dentibus 5 armato, quorum uno columellari, uno basali, uno labiali et duobus posticis. Long. $\frac{1}{15}$, lat. $\frac{1}{20}$ poll. *Hab.* Taheiti, 2000 feet elevation.

About the shape and size of P. *Gouldii*, and with the same number of teeth, but has two of them on the transverse lip, instead of on the columella.

PUPA PEPONUM. Testa minuta, variabilis, ovata, plus minusve elongata, tenuis, lucida, nitida, fulvo-cornea, perforata: spira anfr. 6 convexis leviter striatis: apertura ovato-rotundata, posticè lamellam volventem gerens; labro simplici, ad columellam plerumquè late revoluto; columellâ vel nudâ vel lamellis transversis 1-3 instructâ. Long. $\frac{3}{20}$, lat. $\frac{3}{40}$ poll. *Hab.* Sandwich Islands; very abundant on pumpkin vines.

This interesting little shell is of somewhat doubtful genus. It may prove to be of the genus Tornatellina or Elasmatina. Its very variable characters render a decision difficult. But it belongs to the old genus Pupa, where I at present place it.

PUPA (Megaspira) ELATA. Testa sub-cylindrica, elevata, tenuis, nitida, striis conspicuis lirata, cornea, lituris parvis sparsis propè suturam notata, vix perforata: spira obtusa, anfr. 19 angustis sub-planulatis: apertura parva, obliqua, lunata, anticè sub-effusa posticè lamellam volventem gerens; plica columellari modicâ, bilamellata. Long. $1\frac{1}{2}$, lat. $\frac{1}{3}$ poll. *Hab.* Brazil.

Compared with P. *elatior* it is smaller, more cylindrical, more delicately striated, more shining, the whorls more crowded, be-

ing as 19 to 16 in the same space, the columella smaller and with one fold less, the lip effuse and the umbilicus much smaller.

BALEA PEREGRINA. Testa parva, sinistrorsa, elongata, sub-fusiformis, solida, opaca, rufo-cinerea, vix striata, perforata: spira ad apicem mamillata; anfr. 8, planulatis, sub-tabulatis; suturâ lineari, profundâ: apertura sub-quadrata; peristomate continuo, æquato, leviter reflexo. Long. $\frac{3}{8}$, lat. $\frac{1}{10}$ poll. *Hab.* N. Zealand.

I have referred this shell to the genus *Balea* with much hesitation, on account of its locality. It is remarkable for its fusiform, turreted shape, and for the high walls of its aperture, which rise to a level with the surface of the shell.

Dr. Storer read a letter from J. N. Bates of Barre, describing a variety of the Skunk, of a dark drab or cinnamon color, and destitute of black hairs; and offering a specimen.

Dr. C. T. Jackson exhibited specimens of the cartilage remaining from Mastodon bones, after treatment by acid. He also detailed some experiments on Gun cotton.

A communication from Dr. G. A. Perkins was read, giving an account of an animal captured in the Caracalla river, about twenty miles east of Cape Palmas, West Africa; called by the natives Ne-hoo-le, and belonging to the genus Manatus.

This animal has a flattened, cylindrical form, becoming gradually smaller at either end. The anterior extremities are situated at about $\frac{1}{6}$th the length of the body from the nose, resembling the "flippers" of the sea turtle, but without any appearance of a nail or claw. These members are flattened at the extremity, but thicker and more cylindrical at their union with the body; the edge of the flattened extremity was slightly ragged and the corners rounded.

The upper lip was flaccid in its texture, studded on its under surface with short and thick bristles, and projected considerably over the lower; the angles of the mouth were covered with short black hairs. The lower lip extended obliquely downwards, and formed a sort of chin $5\frac{1}{2}$ inches in length. The lower jaw was narrow and its edge covered with a thick and very firm elastic

black pad. There were no incisors, but seven grinders were visible in each side above and below, and two others behind these were concealed in the alveoli, making in all 36 teeth. The crowns were divided into two parts, and each of these was unequally subdivided into two others, the larger and inner having three small points or serrations. The space between the molars of the two sides was only $1\frac{1}{4}$ inch, which was filled by a tongue resembling somewhat that of a parrot.

The eye measured $\frac{1}{2}$ inch from angle to angle, and when closed its position could not readily be detected. The nostrils were situated about three inches from the edge of the upper lip, one and a quarter inches apart, of a somewhat triangular form and of a size sufficient to admit a man's finger. No external ear or meatus was detected.

The tail was flattened and fan-like, and in length nearly one-fourth that of the whole body. The skin was of a light lead color, fully one inch in thickness, exceedingly tough, and the cuticle and rete mucosum easily separating. The whole body was sparsely covered with short white hairs about one and a half inches apart. Between the skin and the muscles was a layer of cellular membrane filled with a white fat or oil, and which on the belly was three inches thick.

The mammæ were situated just beneath the posterior edge of the paddle or "flipper." The anus was two feet ten inches from the extremity of the tail, and five and a half inches behind the vulva. The stomach and intestines were filled with a vegetable substance resembling grass or the bark of young twigs, in the various stages of digestion.

The lungs were not distinctly lobed, and no septum like the diaphragm noticed, dividing the cavity of the thorax from that of the peritoneum.*

Dr. Perkins's communication was accompanied with drawings, and specimens of hair and cuticle.

* The animal above described by Dr. Perkins, differs from any of the species of Manatee hitherto noticed, in the number of the teeth, which are thirty-six, (Cuvier enumerating only thirty-two in the adult,) and in the absence of nails on the anterior extremities. If the observation with regard to the deficiency of the diaphragm is correct, it would indicate the existence of a peculiarity hitherto unnoticed in the class of mammals. As shown by Dr. Perkins's drawings, the nose is much sharper and longer than in the described species. It may be named *Manatus nasutus*. J. W.

Messrs. Horace Gray, Jr. and Charles C. Sheafe were elected members of the Society.

Dr. William Henry Thayer was nominated as a member of the Society, by Dr. Bacon.

January 20, 1847.

Dr. Storer, Vice President, in the Chair.

Dr. Gould gave descriptions of the following Expedition Shells of the genera Achatinella and Helicina.

ACHATINELLA MARMORATA. Testa oblongo-ovata, coloribus castaneis, cinereis, et albidis marmorata, leviter striata, imperforata: spira acuta, anfr. 6 convexis, supernè sub-tabulatis, ultimo magno, ventricoso: apertura ovata; peristomate simplici, modicè evaso; plicâ columellari albâ, compressâ, ferè transversâ, valdè exstante. Long. $\frac{7}{8}$, lat. $\frac{1}{2}$ poll. *Hab.* Haleakala Mountains, Maui, Sandwich Islands.

A large ventricose species, readily distinguished by its variegated coloring.

ACHATINELLA ELLIPSOIDEA. Testa solida, ellipsoidea, lævis, epidermide luteo interdum fusco zonato induta: spira anfr. 6, convexiusculis; suturâ impressâ: apertura parva, angusta; peristomate acuto, nigro; plicâ columellari ferè transversâ, tenui. Lat. $\frac{7}{20}$, alt. $\frac{7}{10}$ poll. *Hab.* Maui.

Closely allied to A. *microstoma*, which has a thickened lip, and a more dead, striated surface.

ACHATINELLA ACUMINATA. Testa parva, elongata, turrita, lucida, glaberrima, nitida, succinea; spira elevata, anfr. 6 obliquis, convexiusculis, ultimo trientes duo longitudinis equante: apertura angusta, sub-elliptica, peristomate albido, incrassato, prorsum arcuato; columellâ truncatâ, sed vix plicatâ. Long. $\frac{18}{40}$, lat. $\frac{1}{8}$ poll. *Hab.* Kauai, Sandwich Islands.

More elongated, and with more oblique whorls than other species. In its form, color and clearness, it may be compared with *Physa hypnorum*.

The clear, delicate species like this, with the mere semblance of a columellar fold, may properly constitute a distinct group, to which the name Leptachatina (λεπτος and Achatina) might be given.

ACHATINELLA CEREALIS. Testa parva, elongata, cylindraceo-conica, impolita, cinereo-castanea: spira obtusa, anfr. 7-8 planulatis, ultimo trientem longitudinis vix superante: apertura parva, lunata, quadrantem longitudinis adequans; peristomate simplici, intus incrassato; plicâ columellari obsoletâ, anfractu penultimo callo induto. Long. $\frac{3}{8}$, lat. $\frac{1}{8}$ poll. *Hab.* Waianai, Oahu.

In size, form and color it resembles *Bulimus hordeaceus*, but it is still more slender.

ACHATINELLA GUTTULA. Testa parva, tenuis, lucida, rotundato-ovata, succinea, interdum castaneo zonata: spira obtusa, anfr. 6 convexiusculis; ultimo tumido, dimidiam longitudinis superante. Apertura parva, lunata; peristomate albo, incrassato, ad basim valdè truncato; columellâ curtâ, plicâ parvâ instructâ, ad anfractum penultimum callo indutâ. Long. $\frac{1}{8}$, lat. $\frac{3}{16}$ poll. *Hab.* Maui, Sandwich Islands.

One of the smallest, and proportionally the shortest of the group, its length being but little greater than its breadth. It is much more ventricose and less solid than A. *accincta*, Mighels.

HELICINA FULGORA. Testa parva, lenticularis, acutè carinata, glabra, dilutè castanea, lineolis radiantibus angulato-flexuosis, propè suturam et ad carinam dilatatis, picta: spira depresso-conica, acuta; anfr. 5-6 planatis: apertura lata, semilunaris; peristomate reflexo, flavido, ad basim rectangulari; columellâ rectâ, callo modico albido indutâ. Lat. $\frac{9}{40}$, alt. $\frac{5}{40}$ poll. *Hab.* Islands of Upolu and Manua, among bananas.

This species, with H. *laciniosa*, and H. *musiva*, belong to the same group with H. *flammea*, Quoy. These are smaller, and more globular; the first has no reflected lip and the second no radiations beneath.

HELICINA MUSIVA. Testa parva, solidula, sub-globosa, polita, rufo-viridis, supra lineolis flexuosis albidis radiata: spira anfr. 4 rotundatis: apertura lunata; peristomate reflexo, albido, ad basim rectangulari; columellâ rectâ. Lat. $\frac{3}{20}$, alt. $\frac{1}{10}$ poll. *Hab.* Islands of Manua and Upolu, among plantains.

Closely allied to the preceding, but smaller, more globular, not carinated, and destitute of radiated coloring beneath.

HELICINA TROCHLEA. Testa minuta, trochiformis, supra cinerea, costis acutis volventibus 3 vel 4 (intervallis concavis, scabrosis) cincta, infra convexa, polita, citrina : spira anfr. 4, ultimo ad peripheriam bicarinato : apertura sub-trigona ; peristomate leviter reflexo ; columellâ ad basim angulatâ, callo copioso indutâ. Lat. $\frac{1}{8}$, alt. $\frac{3}{40}$ poll. *Hab.* Matea Island.

It has the size and nearly the form of H. *rupestris*, Pfeif., and is distinct from all others by its well-marked, sharp, revolving ribs.

HELICINA MULTICOLOR. Testa parva, solidula, conico-globosa, tenuissimè striata, citrina, interdum fusco-fasciata, vel omnino fusco-rubra, subtus convexa : spira anfr. 4 convexiusculis, ultimo ad peripheriam rotundato ; suturâ impressâ : apertura lunata, lata ; peristomate simplici, acuto, ad basim obtusè angulato ; columellâ expansâ, callo copioso indutâ. Lat. $\frac{3}{20}$, alt. $\frac{1}{10}$ poll. *Hab.* Tongataboo.

A very delicate species, and one of the smallest known, and principally remarkable for its variable coloring.

HELICINA UBERTA. Testa parva, solida, sub-globosa, lævis, dilutè citrina ; spira anfr. 4 ; suturâ impressâ : apertura parva, semilunaris, extrinsecus constricta ; peristomate simplici, vix reflexo ; columellâ callo flavo copiosissimo, haud appresso, indutâ. Lat. $\frac{7}{40}$, alt. $\frac{3}{20}$ poll. *Hab.* Maui, and Oahu Mountains.

Very remarkable for the abundant golden yellow callus which forms a tongue-like projection across the base of the shell.

HELICINA BERYLLINA. Testa solidula, depresso-conica, infra convexa, ad peripheriam obtusè angulata, polita, albido-virens : spira anfr. 5 planulatis, ultimo cito crescente ; suturâ lineari : apertura magna, transversè semi-elliptica ; peristomate simplici ; callo columellari latè expanso. Lat. $\frac{1}{2}$, alt. $\frac{3}{8}$ poll. *Hab.* Feejee Islands.

Rather large as to size, and remarkable for its delicate beryl-green tint and polished surface. The outer whorl enlarges very rapidly. In form it resembles H. *similis*, Sowb.

HELICINA PALLIDA. Testa lenticularis, solidiuscula, luteo-ci-

nerea, inequaliter striata, epidermide tenuissimâ induta: spira depressa; anfr. 5 acutè carinatis, planatis: apertura semilunaris, ad columellam callosa; labro modicè reflexo. Lat. $\frac{3}{10}$, alt. $\frac{3}{20}$ poll. *Hab.* Feejee Islands.

Resembles somewhat H. *miniata*, Lesson, which is more solid, polished, lip simple, suture double. In shape and color it is like H. *oxystoma*, Gray, but is smaller, and the lip not angular at the carina.

Dr. Storer read an interesting letter from Dr. Forsyth of Chelsea, on the several varieties of Trout, that inhabit the brook or the sea, observed by him at Sandwich, on Cape Cod; describing the peculiarities of each, with anecdotes of the mode of capture, habits, &c.

Dr. Cabot called attention to a vegetable specimen received from Dr. Cragin, with the following memorandum.

"The remains of a twig, having originally large green leaves, which, instead of decomposing and decaying in the usual way of dead leaves, are, not unfrequently, found in this state in the woods of Surinam."

It was committed to Mr. Teschemacher.

Dr. Cabot also gave notice of the receipt from Dr. Cragin of twenty-four Bird Skins, and five Birds in spirits, all of which were new to our Cabinet, and he thought many of them undescribed species. There were also jars of Reptiles, &c. The thanks of the Society were voted to Dr. Cragin.

The use of the Hall of the Society was voted to Dr. Wyman, for a course of lectures which he proposes to give in the ensuing spring; with liberty to use such of the specimens as he may require for the same.

Dr. William Henry Thayer was elected a member of the Society.

ADDITIONS TO THE LIBRARY.

Report on the Season of 1846, published by request of the

Middlebury County Agricultural Society. By James Barratt. 8vo. pamph. Middletown, Conn. *From the Author.*

Essay upon the Wheat Fly, and some species allied to it. 8vo. pamph. Albany, 1846. By Asa Fitch. *Author.*

Silliman's American Journal of Science and Arts, No. 7, for January, 1847. *Editors.*

Fourth Bulletin of the National Institute. 8vo. pamph. February, 1845 to November, 1846. *National Institute.*

Annals and Magazine of Natural History, No. 121, for December, 1846, and Nos. 122 and 123, for January, 1847. 8vo. pamph. *Courtis Fund.*

Gray's Genera of Birds. Parts 32 and 33. London. *Audubon Fund.*

February 3, 1847.

Dr. Storer, Vice President, in the Chair.

The following species of Cyclostoma, from the collection of the Exploring Expedition, were presented by Dr. Gould.

Cyclostoma tiara. Testa solida, turbinata, rudis, distorta, sordidè alba, latè umbilicata: spira anfr. 5 laxis, rotundatis, spiraliter liratis, supernis undulatis; inter liros lineis incrementalibus confertè clathratis: apertura circularis, peristomate simplici. Lat. $\frac{3}{4}$, alt. $\frac{1}{2}$ poll. *Hab.* Upolu.

This rather large species stands at the head of a group of rude and very variable species from the Pacific Islands. They have a bony structure, are coarsely indented, and grooved spirally, often have the whorls nearly disjoined, and the umbilicus so large as to approximate to Solarium.

Cyclostoma strigatum. Testa solida, orbiculato-conica, pallidè beryllina, supra costulis cingulata, infra sub-planulata, umbilico amplo et carinâ acutâ impendente limitato perforata: spira anfr. 5 convexis, suturâ benè discretis, ultimo propè aperturam despecto, ferè disjuncto: apertura circularis; peristomate simplici, everso, acuto. Lat. $\frac{9}{20}$, alt. $\frac{3}{10}$ poll. *Hab.* Upolu.

Not half so large as the preceding, and may be known by its

uniform fluting, its sub-globose form, its plain, flattened base, and ample tunnel-shaped umbilicus, margined by an overhanging carina?

Cyclostoma plicatum. Testa parva, solida, rudis, pyramidata, cinereo-virens, plicis confertis obliquis rugata, et striis minutis volventibus cincta: spira acuta, anfr. 6 rotundatis et suturâ benè discretis, ultimo ad peripheriam rotundato; infra convexa et umbilico modico acutè marginato perforata: apertura circularis; peritremate simplici. Lat. $\frac{2}{5}$, alt. $\frac{2}{5}$ poll. *Hab.* Upolu.

Differs from the preceding in its more elevated, acutely conical form, its plaited whorls without prominent revolving lines, its rounded periphery and base, and its more contracted umbilicus. The young are discoidal, without folds, but with somewhat nodular spiral lines and bright beryl-green color.

Cyclostoma obligatum. Testa parva, crassa, sub-globosa, cinerea, arctè perforata, utrinque sulcis et costulis acutis subcrenulatis equalibus cincta, et lineis incrementi subtilissimis striata: spira acuta, anfr. 5 rotundatis: apertura parva, ovata; peristomate simplici, crasso. Lat. $\frac{5}{16}$, alt. $\frac{3}{8}$ poll. *Hab.* Matea.

Still smaller than C. *rugatum*, and remarkable for its solid structure, its coarse alternate ridges and grooves, and its small ovate aperture. It looks not unlike some specimens of *Littorina rudis*.

Cyclostoma diaṫretum. Testa planorboidea, albido-cornea, supra costis distantibus, ad intervallos cincinnè clathratis, angulata, latè umbilicata: spira planulata, anfr. 4 cylindraceis, rapidè crescentibus, propè suturam decliventibus: apertura circularis; peristomate simplici. Lat. $\frac{2}{5}$, alt. $\frac{1}{5}$ poll. *Hab.* Sandalwood Bay, Feejee Islands.

Answers very nearly to the description of C. *orbella*, Lk. The whorls increase more rapidly, the costæ are more distant above, and the umbilicus is less broad and open.

Cyclostoma roseum. Testa parva, solida, elevato-conica, glabra, pallidè rosea: spira acuta, anfr. 6 convexiusculis, supra arctè tabulatis; suturâ benè impressâ: apertura spiram haud equans, ovata; peristomate eversa, acutâ; fissurâ umbilicali costâ circumambiente finitâ. Lat. $\frac{1}{4}$, alt. $\frac{7}{20}$ poll. *Hab.* Feejee Islands.

This shell, with several others from the Pacific Islands, forms a group characterized by their slender, elevated form, and the rib which circumscribes the umbilical region. It is more deeply and uniformly colored than C. *rubens*, Quoy, which is also smaller, thinner, and has a much larger umbilicus.

Cyclostoma terebrale. Testa parva, turrita, acuminata, flavida vel dilute cornea, lævigata, umbilico rimato circumvallato perforata: spira elevata, acuta, anfr. 6-8 convexiusculis, anticè sub-angulatis, sese partim obtegentibus; suturâ impressâ; apertura sub-rotunda, posticè angularis, campanulata; peristomate simplici, anfractui penultimo latè adnato. Lat. $\frac{1}{10}$, alt. $\frac{1}{4}$ poll. *Hab.* Taheiti and Eimeo.

Distinguished from allied species by its acuminated spire, angular, imbricated whorls and expanded aperture. It bears a general resemblance to *Pupa fallax*, Say.

Cyclostoma vallatum. Testa parva, solida, elongato-conica, lucida, fusco-cornea: spira anfr. 6 convexis, sub-angulatis, ultimo costâ validâ umbilicum ambiente munito; suturâ profundâ: apertura obliquè ovata; peristomate continuo, simplici, campanulato. Lat. $\frac{1}{8}$, alt. $\frac{1}{5}$ poll. *Hab.* Tongataboo.

Cyclostoma scitulum. Testa parva, elongato-conica, tenuis, rufo-cornea, striis incrementi tenuibus solum insculpta, arctè umbilicata: spira elevata, anfr. 6-7 rotundatis, supernis sub-angulatis; suturâ profundâ: apertura rotundato-ovata, parva, trientem longitudinis adequans; peristomate simplici, pallido. Long. $\frac{1}{5}$, lat. $\frac{1}{10}$ poll. *Hab.* Taheiti and Eimeo, Manua.

Almost exactly like *Amnicola Sayana*, Anth. It is larger and more ventricose than C. *vallatum*, and is distinguished from C. *terebrale* by its less slender form and unexpanded lip.

Dr. Cabot stated that two specimens of the Cinereous Owl had been procured lately, by Prof. Agassiz. One was shot in Vermont, the other in Cambridge.

Mr. S. L. Bigelow read a paper on the Trout of Monadnock Pond; giving details of their habits, as observed by himself, and anecdotes of the different modes of capture, &c.

Dr. Storer submitted the following Resolutions, which

were unanimously adopted; and it was voted that a copy thereof be left at the Library room, to receive the signatures of members.

Resolved, That the Society present to Professor Agassiz their heartfelt thanks for the gratification and instruction received by its members during his late course of lectures on the "Plan of Creation."

They would assure him that his lectures have given an impetus to the study of Natural History, such as has never before been felt in this community; and which, while they have excited the curiosity and called forth the admiration of the public, have more than realized the most sanguine expectations of this scientific Society.

While, as a body, we would thus tender our acknowledgment to the liberal naturalist and enlightened philosopher, we beg him to accept our individual esteem and friendship.

ADDITIONS TO THE LIBRARY.

Transactions of the Linnæan Society, Vol. XIX. Parts 2, 3, 4; Vol. XX. Parts 1 to 4. London, 1843 to 1846. *From the Linnæan Society.*

Proceedings of Linnæan Society. Pages 89–304. January, 1841 to May, 1846. 8vo. London. *Linnæan Society.*

James D. Dana on the Origin of Continents. 8vo. pamph. 1846. *Author.*

James D. Dana on Zöophytes. No. 3. 8vo. pamph. 1846. *Author.*

Report of the Trees and Shrubs growing naturally in the Forests of Massachusetts. Published by the Legislature. 8vo. Boston, 1847. *From G. B. Emerson.*

February 17, 1847.

Dr. C. T. Jackson, Vice President, in the Chair.

Mr. S. L. Bigelow, by request, read the paper on the Trout of Monadnock Pond, which was submitted at the

last meeting; and it was referred to the Publishing Committee.

Dr. Gould read interesting extracts from a letter lately received from Rev. F. Mason, of Tavoy, accompanying valuable contributions for the Cabinet, and giving many interesting details relating to the habits of the animals sent. The specimens presented were, the head and portions of the Skin of a Python, Horns of the Muntjak and Rusa Deer, Reptiles, Insects, Plants, Shells, and various other articles.

Dr. G. also read descriptions of four species of Truncatella from the Collection of the Exploring Expedition.

TRUNCATELLA AURANTIA. Testa parva, decollata, conico-cylindracea, aurantia, sub-perforata, longitudinaliter confertim clathrata; clathris elevatis, rectis, numero ad 40 in singulis anfractibus: spira anfr. 5 convexis: apertura obliqua, ovata; peristomate albo, continuo, reflexo. Long. $\frac{3}{10}$, lat. $\frac{1}{10}$ poll. *Hab.* Mangsi Island, Borneo.

Its principal characters are its large size, very convex whorls, and very numerous bars. T. *Caribbæorum*, Sowb. is often of the same color, but is more robust, the whorls less convex and the bars less numerous and less elevated.

TRUNCATELLA VITIANA. Testa decollata, conico-cylindracea, solidula, flavido-cinerea; spira anfr. superstitibus 4-5 planiusculis, costulis subrectis, elevatis, obtusis ad 30 clathratis: apertura obliqua, rotundato-elliptica; peristomate expanso, continuo, anfractui penultimo haud adnato, costâ marginato quæ posticè ad suturam producta est; operculum laminatum. Long. $\frac{3}{10}$, lat. $\frac{1}{10}$ poll. *Hab.* Feejee Islands.

One of the largest species, though it varies greatly in size. It is especially distinguished by the peculiar mode in which the lip forms its junction posteriorly. The bars also become fused posteriorly, so that the intervening flutings do not always reach the suture. It differs from T. *aurantia* in color, is more solid, and the bars are less numerous.

TRUNCATELLA PORRECTA. Testa parva, elongata, sub-cylindrica, decollata, albida; spira anfr. superstitibus 4 convexis,

clathris humilibus acutis ad 16 instructis, ad intervallos minutissimè et longitudinaliter striatis: apertura rotundato-lunata, ab anfractu penultimo latè sejuncta; peristomate continuo, extrorsum expanso: operculum laminis arrectis radiantibus eccentricis ornatum. Lat. $\frac{3}{40}$, alt. $\frac{1}{4}$ poll. *Hab.* Taheiti.

The distinguishing marks are, its slender form, unusually convex whorls, and the protrusion of the last whorl.

TRUNCATELLA ROSTRATA. Testa parva, conico-cylindracea, nitida, decollata, incarnata, obliquè clathrata; clathris ad 12 robustis: spira anfr. 5 convexiusculis: apertura parva, obliquè ovata; peristomate continuo, crasso, albido, duplici, reflexo. Lat. $\frac{3}{40}$, alt. $\frac{9}{40}$ poll. *Hab.* Rio Janeiro.

In size and color it is much like T. *Cumingiana*, Adams, which is still smaller, has only 8 bars, which are whitish, more elevated and acute. The secondary lip gives the base of the shell, when viewed in profile, a rostrated appearance.

Dr. Storer submitted a letter from A. W. Chapman of Apalachicola, Florida, accompanying a package of Florida Plants, which "he desires to present to the Society, in return for its Proceedings and selections from its Journal, which he has from time to time received from its members, and read with much satisfaction."

The plants were committed to Mr. Teschemacher.

Mr. Edward Phillips was nominated for election as a member of the Society, by B. A. Gould, Esq.

March 3, 1847.

Dr. C. T. Jackson, Vice President, in the Chair.

Dr. Gould presented a paper, furnished for the Journal, by Prof. Dewey of Williams College, being a notice of a work entitled "Symbolæ Caricologicæ ad synonymiam Ca-

ricum extricandam, stabilandamque, et affinitates naturales eruendas; auctore S. Drejer."

It was referred to the publishing Committee.

Dr. Gould also read extracts from a letter of Rev. Mr. Mason, referring to specimens of Insects, some of which he had forwarded to Dr. Gould. He mentioned others, which he had not sent, from an impression that they were too common.

Professor Agassiz remarked on the mistake which naturalists commit in overlooking the common productions of countries, in their search after rarities. It is the indigenous, and therefore the most common, productions of countries, which are most worthy of notice by native observers, and most likely to be interesting to foreigners, and not those which are rarely met with. The indigenous productions of America, for instance, are most the objects of curiosity in Europe, and those of Europe in America. The common household insects (Cimex, Blatta, &c.) are not without interest when met with in distant countries, from the question how far they have been changed by domestication and climate; which question can only be answered by the observation of many specimens, and for the means of such comparison we might search in vain in our collections.

Count Pourtalés exhibited a dissection of *Natica heros*, showing the apparatus by which he supposed the animal perforates shells. Dr. Jackson remarked, that he had discovered slight signs of the existence of an acid in mollusca, by which they might be aided in effecting the perforations they make in shells and rocks; he thought it possible such an acid might be furnished by the fluids of their stomachs.

Dr. Gould read descriptions of the following species of Limniadæ, from the Collection of the Exploring Expedition.

ANCYLUS ADUNCUS. Testa exigua, obliquè conica, viridula, striis radiantibus et striis concentricis decussata; apice acutâ, valdè incurvatâ: apertura ovato-rotundata. Long. $\frac{1}{5}$, lat. $\frac{3}{20}$, alt. $\frac{1}{10}$ poll. *Hab.* Mountain streams, Madeira.

Closely resembles A. *fluviatilis*, and probably still more A. *radiatus*, Guilding.

DOMBEYA FASCIATA. Testa ovata, tenuis, ferrugineo-virens, fusco spiraliter fasciata, creberrimè plicato-striata et lineis volventibus minimis decussata; spira acuta; anfr. 6 ventricosis; sutura pallida, marginata: apertura semilunaris; columella alba, plicâ acutâ instructa. Long. $\frac{3}{4}$, lat. $\frac{3}{8}$ poll. *Hab.* River Concon, Chili.

Allied to *Chilina fluctuosa*, D'Orb., but is more regular in form, more ventricose and more solid; and is noted for its very minute revolving lines, its bands, and its pale suture.

DOMBEYA OBOVATA. Testa obovata, solidula, pallidè olivacea, longitudinaliter colore saturatiori fulguratim virgata: spira curta, anfr. 6, convexis, ultimo magno, antrorsum attenuato, posticè sub-angulato: apertura magna, elongato-ovata; columellâ albâ, sub-rectâ, benè plicatâ: interior livescens. Long. $\frac{7}{8}$, lat. $\frac{1}{2}$ poll. *Hab.* Concon River, Chili.

In size and marking it is similar to C. *major*, Gray, but is less broad, and the suture much less impressed. It is much larger and more ventricose posteriorly than C. *pulchra*, D'Orb., and much less pictured.

LIMNEA VOLUTATA. Testa parva, tenuissimè striata, fulva, cylindraceo-ovata: spira decollata; anfr. 2-3 superstitibus, obliquis, convexiusculis; suturâ modicâ: apertura ovata, dimidiam testæ superans; columellâ rufâ, valdé sinuatâ. Long. $\frac{3}{10}$, lat. $\frac{1}{5}$ poll. *Hab.* Oahu.

Much smaller than L. *Oahuensis*, Souleyet, and with less tumid whorls, sloping gently to the suture. The somewhat cylindrical aspect of the shell is peculiar.

LIMNEA LEPIDA. Testa gracilis, elongata-conica, fragilis, dilutè cornea, striis volventibus remotis et striis incrementalibus undulosis decussata: spira acuminata; anfr. 5 obliquis, convexiusculis: apertura magna, semilunaris, expansa; plicâ columellari pernotabili, acutâ. Long. $\frac{3}{5}$, lat. $\frac{1}{4}$ poll. *Hab.* Lake Vancouver, Oregon.

Allied to L. *pallida*, Adams, but is more delicate, more acutely pointed, the aperture much larger, the lip expanded, and the surface peculiarly decussated. The whorls are much more oblique and less rounded than in L. *desidiosa*.

PLANORBIS OPERCULARIS. Testa parva, valdè depressa, castanea, supra planulata; apice depressâ: subtus convexa, latè umbilicata, ad peripheriam marginata et obtusè carinata; spira anfr. 4, suturâ benè impressâ sejunctis; apertura transversa, subrhomboidea. Long. $\frac{1}{4}$, lat. $\frac{1}{16}$ poll. *Hab.* Rio Sacramento, Upper California.

Resembles P. *exacutus*, Say, but is larger, less compressed and less delicate; and the periphery instead of being acutely edged, has a blunted keel like P. *carinatus*.

PLANORBIS VERMICULARIS. Testa parva, fornicata: spira planulata, apice depresso, anfr. 4, cylindraceis, ultimo propè aperturam deflexo; subtus concava; apertura perobliqua, elliptica. Lat. $\frac{1}{5}$, alt. $\frac{1}{15}$ poll. *Hab.* Interior of Oregon.

About the size and form of P. *deflectus*, Say, but is less depressed, the whorls more cylindrical, and not compressed at the periphery.

M. P. Wilder was nominated for election as a member of the Society, by C. K. Dillaway.

ADDITIONS TO THE LIBRARY.

Twenty-sixth Annual Report of New York Mercantile Library Association. 8vo. pamph. 1847. *From the Association.*

American Journal of Agriculture and Science, for February, 1847. *From the Editors.*

W. C. Redfield, on Hurricanes and Northers. 8vo. pamphlet, New Haven, 1846. *From the Author.*

Annals and Magazine of Natural History. No. 124; for February, 1847. *Courtis Fund.*

Gray's Genera of Birds. Part 34. *Audubon Fund.*

Calcutta Journal of Natural History. Nos. 13, 14, 16. 8vo. 1843–4. *Editors.*

Dana, James D., Geological Results of the Earth's Contraction in consequence of cooling. 8vo. pamph. New Haven, 1847. *Author.*

Silliman's American Journal of Science and Arts. No. 8, 2d Series. 8vo. New Haven, 1847.

March 17, 1847.

Dr. C. T. Jackson, Vice President, in the Chair.

Dr. Cabot exhibited a Sternum and Trachæa of *Cygnus Americanus*, showing the curvatures and reduplication of the latter organ within the Sternum, probably having some connection with the voice.

Dr. Cabot remarked that he had noticed, in dissections of Waders and Swimming Birds, the remnant of the vitelline duct. He suggested whether this fact might not be made use of as a distinctive character in classification.

Mr. Stodder reported upon some pamphlets of Mr. J. D. Dana, on the formation of Continents, and on Lunar Volcanoes. He thought the inferences drawn by the author from the appearances of the Moon's volcanoes, and applied to the phenomena of the structure of the Earth, were ingenious, and his hypotheses hard to be refuted; yet equally difficult to be proved.

Dr. C. T. Jackson gave an account of the Tertiary of Maine, stretching along its coast from Lubec to Portland. It is rich in remains of *Pecten Islandicus*, *Buccinum undatum*, *Mytilus edulis*, and other shells, of which specimens were exhibited.

Dr. Wyman spoke of a mass of Lignite, from the Tertiary of Richmond, Va., which, as first found, was soft and friable, so that a blunt stick might be thrust into its substance. But after a few hours exposure to the atmosphere, it hardened and exhibited a conchoidal fracture resembling that of coal. It was embedded in a blue clay, mixed with sand.

Dr. Storer read a letter from F. B. E. Browne, M. D., of Apalachicola, Fa., accompanying two specimens of *Amphiuma means*, and giving some account of its habits and ap-

pearance. The specimen itself was not yet received. Dr. Storer proposed a vote of thanks to Dr. F. B. E. Browne for this donation, and to Dr. A. W. Chapman, of Apalachicola, Fa., for a package of plants of that region, presented at a late meeting. Voted accordingly.

Dr. Gould read descriptions of the following species of Physa, from the Collection of the Exploring Expedition.

PHYSA TABULATA. Testa ovata, sub-solida, impolita, fuliginosa; spira anfr. 4-5 ventricosis, supernè angulato-carinatis, latè tabulatis: apertura elliptica, dimidiam testæ longitudinis superans; columella albidâ, vix plicatâ; fauce fusco-castaneo. Long. $\frac{7}{10}$, lat. $\frac{4}{10}$ poll. *Hab.* New Zealand.

Not to be mistaken for any other species. It is very much more angular than P. *ancillaria*, and the keel upon the angle, when closely examined, is found to be minutely crenulated. P. *variabilis*, Gray, has the lower instead of the upper part of the whorl angular and keeled.

PHYSA GIBBOSA. Testa obovata, tenuis, glabrata, luteo-cornea: spira acuminata, anfr. 5 rotundatis, ultimo posticè valdè gibboso, anticè attenuato; apertura angusta, subovalis, trientes duæ longitudinis adequans; columellâ sinuatâ, callo indutâ. Long. $\frac{5}{8}$, lat. $\frac{3}{8}$ poll. *Hab.* New South Wales.

The resemblance to P. *ancillaria*, in the younger specimens, is very striking; the older ones are more like P. *tabulata*, but the last whorl is merely gibbous and not angular. P. *Novæ Hollandiæ* is somewhat similar, but is much more elongated, and neither angular nor gibbous.

PHYSA SINUATA. Testa parva, ovata, cornea, arcuatim striata: spira acuta; anfr. 5 rotundatis posticè sub-angulatis; suturâ profundâ: apertura obovata, angusta, anticè sub-effusa, posticè emarginata; labro antrorsum arcuato; columellâ incrassatâ, subperforatâ, reflexâ. Long. $\frac{1}{2}$, lat. $\frac{1}{4}$ poll. *Hab.* Feejee Islands.

Remarkable for its thickened inner lip, and for the advancing outer lip and consequent posterior sinus and arched striæ of growth, found in no other species except P. *gibbosa*.

PHYSA RETICULATA. Testa tenuis, elongata, ovato-conica, fulva,

striis subtilissimis decussata: spira anfr. 4-5 ventricosis; suturâ per-profundâ: apertura obovata, dimidiam testæ longitudinis vix superans; columellâ rufâ, valdè plicatâ. Long. $\frac{7}{10}$, lat. $\frac{7}{20}$ poll.; of another, long. $\frac{1}{2}$, lat. $\frac{1}{4}$ poll. *Hab.* Sandwich Islands.

Remarkable for its general color, the color of the pillar lip, its decussated surface, and its very tumid whorls. Its form is so much like that of a reversed Limnea, that I am strongly inclined to believe it to be one. Probably the *Limnea Oahuensis*, Souleyet, (Voy. de la Bonite,) is the same; but unfortunately the animal there given is so indefinitely figured as to leave it doubtful whether it is really a Limnea or a Physa.

PHYSA VIRGINEA. Testa elongato-ovata, tenuis, fragilis, lucida, nitida, alba: spira acuta, anfr. 5 convexis, posticè subangulatis: apertura elongata, obovata, posticè acuta; columella leviter plicata. Long. $\frac{8}{15}$, lat. $\frac{5}{16}$ poll. *Hab.* Rio Sacramento, California.

The porcelain-like structure and color of the specimens seems not to be merely the effect of bleaching. It is one of the most elongated species, but less slender than P. *hypnorum* and more like P. *gyrina* or P. *rivalis* in form, but is a far more delicate shell.

PHYSA VENUSTULA. Testa parva, ovata, pellucida, nitida, dilutè cornea: spira elevata, anfr. 5 ventricosis, posticè subangulatis: apertura ovata; columellâ validâ, albidâ, valdè sinuatâ. Long. $\frac{3}{10}$, lat. $\frac{9}{20}$ poll. *Hab.* Lima.

Closely resembles small specimens of P. *heterostropha*, though in size and texture it is like P. *fontinalis*, which has a much shorter spire.

Messrs. Edward Phillips and Marshall P. Wilder were elected members of the Society.

ADDITIONS TO THE LIBRARY.

Audubon and Bachman. Quadrupeds of North America. Plates, 101–105. Folio. *Subscribers.*

S. G. Morton. Hybridity in Animals and Plants. 8vo. pam. New Haven, 1847. *Author.*

Transactions of Massachusetts Horticultural Society, for 1843–6. 8vo. pam. Boston. *The Society.*

March 24, 1847.

Dr. C. T. Jackson, Vice President, in the Chair.

The Vice President stated that this special meeting had been called on account of the melancholy event, the tidings of which had been received by the last steamer from England, the death of our late President, Amos Binney, Esq.

Dr. Storer moved the following resolution:

Resolved, That the unexpected tidings of the death of our much-valued friend, Amos Binney, Esq., late President of this Society, fill us with inexpressible sorrow. To us we feel that his loss is irreparable. One of the founders of this Society, he was ever its most steady, devoted, true friend; constantly evincing his interest by suggesting new plans for its advancement; constantly proving his sincerity by endeavors to perfect them. To his encouragement, decision, perseverance, we owe, in no slight degree, our present prosperous condition. With full hearts we would acknowledge our obligations, while we gratefully cherish his memory.

Prof. Asa Gray offered the following resolution:

Resolved, That the Council be requested to prepare, or cause to be prepared, by such member of the Society as they may designate for that purpose, a sketch of the life and scientific labors of our late lamented President, to be read before the Society and published in its Journal, or in such other manner as the Society may direct.

Mr. E. S. Dixwell offered the following resolution:

Resolved, That we deeply sympathize with the family of the deceased, in their present great affliction; and that the Secretary be directed to communicate to them an attested copy of the foregoing resolutions.

The foregoing resolutions being severally proposed to the meeting, were unanimously adopted.

Dr. A. A. Gould was chosen to prepare a Memoir, agreeably to the second Resolution.

April 7, 1847.

Dr. C. T. Jackson, Vice President, in the Chair.

Dr. Cabot, in behalf of the Committee on the subject of procuring a suitable edifice for the Society, reported that the building in Mason Street, known as the Massachusetts Medical College, was now for sale at a reasonable price, and that the Committee, after a thorough examination of it, were of opinion that it was capable of being adapted perfectly to the wants of the Society. They therefore recommend that it be purchased and undergo the necessary repairs and alterations, for the Society. Plans of the proposed improvements were exhibited.

After discussion, Mr. Emerson moved that the Committee have authority to make the purchase, and cause the proposed alterations to be made. It was voted unanimously.

Dr. C. T. Jackson gave notices of some analyses of Snow, which fell in Boston, in the last month, made by one of his pupils, Mr. George O. Barnes. The object was to ascertain the quantity of Ammonia brought down from the atmosphere by the snow, which, as coming from a region immediately over a large city, might be expected to exhibit a larger quantity than was found by Liebig in his analyses of snow at Giessen. The result was according to expectation, the quantity, in 100 grains of water, being 1.33 gr. to 1.44 gr. in different experiments.

Mr. Desor, in reference to the analyses of Snow, made some remarks.

The existence of Ammonia in snow, both in the glacial and the higher mountain snows, had been inferred, many years ago, from the fact that several iron vessels and tools, which had been left during winter in the snow, were found the next spring free from rust. Accurate analyses have since been made by Mr.

Horsford, in the laboratory of Prof. Liebig, who found a much less proportion than Dr. Jackson, $\frac{1}{10000000}$ of weight. M. Desor observed that it was very difficult to account for the presence of Ammonia from the presence of the Infusoria in red snow, and of the minute Podurellæ (*Desoria glacialis*), though so abundant.

Dr. C. T. Jackson exhibited beautiful Crystals, formed in a mass of cinders, which had lain undisturbed for some years, at the copper-works at Point Shirley. They proved, on analysis, to be a bi-sulphat of copper and zinc.

Dr. C. T. Jackson described an interesting experiment of Mr. Blake at the Gas-works.

He placed a mass of compact felspar in a crucible, hermetically sealed, in a furnace flue at the gas-works, where it was exposed for 108 hours to a uniform temperature considerably below the degree necessary for the fusion of the mineral. On being taken out, it was found to be perfectly limpid, and transparent as quartz; showing that long-continued heat, though not to a degree sufficient to melt the mineral, produces effects similar to those produced by fusion.

Dr. Gould described new Shells, received from Rev. Mr. Mason, of Burmah, several of which had been furnished by the lady of one of his associates, Mrs. Vinton. He repeated a remark, formerly made, that the forms of land and fresh water shells from our antipodes, bore a striking resemblance to those of our own country; while those from intermediate regions are quite dissimilar. The shells now received give additional confirmation of the fact.

Helix anguina. Testâ sinistrorsâ, distortâ, planorboideâ, glabrâ, fusco-castaneâ; infra radiatim flammulatâ, vix concavâ; spirâ planulatâ, anfr. $5\frac{1}{2}$ convexiusculis, ultimo ad peripheriam sub-angulato; aperturâ despectâ, per-obliquâ, semi-ellipticâ, peristomate rufo, revoluto, callo angulato haud appresso, conjuncto; lamellâ albâ secundum anfractum penultimum intro-volvente. Diam. 1, alt. $\frac{1}{4}$ poll. *Hab.* Manko, near Newville, Province of Tavoy. Presented by Mrs. Vinton.

Another curious reversed, planorboid shell, like H. *refuga*,

p. 72, from the same region. It is larger, less concave, and peculiarly colored, like *Steganotoma pictum*, Troschel.

MELANIA PAGODULA. Testâ crassâ, sub-rhombeâ, turritâ, tenuiter striatâ, fusco castaneâ, decollatâ; spirâ elevatâ, conicâ, anfr. 4, angulatis, angulo spinis 6 robustis armato; ultimo anticè sub-rostrato, et costulis ad 4 cincto: aperturâ ovatâ, antrorsum productâ, fauce cærulescente, fusco maculato. Long. $1\frac{1}{2}$, lat. $\frac{7}{8}$ poll. *Hab.* Thoungyin River, a branch of the Salwen. Presented by Mrs. Vinton.

This remarkable shell is almost precisely like M. *armigera* in its structure and proportions, but is three times as large, something like *Io spinosa*.

MELANIA BACCATA. Testâ magnâ, crassâ, elongato-turritâ, epidermide fusco-castaneo indutâ; spirâ decollatâ, anfr. 6 rotundatis, plicis longitudinalibus et costis volventibus triseriatim nodoso-decussatis, ultimo ad basim 4 costato; aperturâ lunatâ, labio anticè producto, columellâ aurantiâ valdè arcuatâ; fauce cœrulescente fusco fasciato. Long. 2, lat. $\frac{3}{4}$ poll. *Hab.* Thoungyin River. Presented by Mrs. Vinton.

Closely allied to M. *inquinata*, but it is distinguished by its ranges of prominent pustular knobs and its orange columella.

MELANIA HUMEROSA. Testâ elongato-turrita simplex, viridi-corneâ; spirâ derosâ, anfr. ad 8 convexis, propè suturam obsoletè angulatis, lineis tenuissimis spiraliter striatis, ultimo anticè costato-striato; aperturâ sub-ovali, anticè vix effusâ; columellâ rotundatâ, albâ, fauce fasciatim sub-livida. Long. $1\frac{7}{8}$, lat. $\frac{1}{2}$ poll. *Hab.* Manko, Tavoy. Presented by Mrs. Vinton.

Allied to M. *Virginica* in size and form, though somewhat more conical and robust, and with angular whorls. It still more nearly resembles M. *intermedia*, of Von den Busch.

MELANIA FLUCTUOSA. Testâ parvâ, elongata, sub-cylindricâ, fulvo-corneâ, longitudinaliter plicatâ, plicis 8-10 compressis, acutis, fuscescentibus: anfr. ad 6 (apice derosâ) vix convexis, suturâ haud impressâ; aperturâ parvâ, ovatâ, vix effusâ. Long. $\frac{3}{8}$, lat. $\frac{1}{4}$ poll. *Hab.* Newville, Tavoy. Presented by Mrs. Vinton.

Allied to M. *plicifera*, Lea, but is smaller, more cylindrical,

with the plaits extending to the base, and destitute of the coarse revolving lines.

NERITINA CAPILLULATA. Testâ conico-globosâ, ad peripheriam subangulatâ, fusco-viridi, interdum fasciatâ, lineolis capillaceis fuscis acutè angulatis reticulatâ; spirâ obtusissimâ, anfr. 2, ultimo propè suturam obstricto; aperturâ obliquè semicirculari, virescente, labro tumido, columellâ arcuatâ, obtusâ, edentulâ, striolatâ. Long. $\frac{3}{8}$, lat. $\frac{1}{2}$ poll. *Hab.* Tavoy.

Much like N. *ziczac*, but much smaller and of a paler green; the aperture is much lighter colored, and the zigzag lines are exceedingly delicate and very acutely angular, not being distinctly visible except in young specimens. It must be very much like N. *flavovirens*, Von den Busch.

NERITA ARTICULATA. Testâ obliquè semiglobosâ, posticè planulatâ, anticè dilatatâ; spirâ prominulâ, anfr. 3, liris prominulis atro-purpureis, albo articulatis 25-30 cinctis, interspatiis latioribus lucidis carneolis decussatim striatis: aperturâ magnâ semilunari, labro acuto atropurpureo, callo albo creberrimè sulcato firmato; fauce luteo; labio excavato, extrorsum plicato; columellâ acutâ, sinuatâ, denticulis 3-4 armatâ. Diam. $\frac{1}{8}$, alt. $\frac{1}{2}$ poll. *Hab.* Tavoy.

Much like M. *lineata*, but a little more oblique and less globular; the girdling threads are less numerous, less in relief, and distantly articulated with white; color more flesh-like; grooves on labrum more numerous, 25-30; spire a little protruded.

NEMATURA PUNCTICULATA. Testâ minutâ, subrhombeâ, compressâ, solidâ, nitidâ, pallidè virescente, omnino sub lente puncticulis serialibus insculptâ; spirâ elevatâ, anfr. 5 convexis, ultimo permagno, versus aperturam valdè contracto; aperturâ parvâ, dispari, rotundato-ellipticâ, tubuliformi; labro simplici, crasso, continuo. Long. $\frac{1}{8}$, diam. $\frac{1}{4}$ & $\frac{1}{8}$ poll. *Hab.* Tavoy. Presented by Mrs. Vinton.

About the size and shape of N. *deltæ*, Benson, but the aperture is much more distorted, there is no approach to an umbilicus, and its punctured surface is sufficiently distinctive.

UNIO GENEROSUS. Testâ magnâ, solidâ, transversâ, oblongo-ovatâ, inequilaterali, anticè rotundatâ et angustatâ; posticè obli-

quatâ, subrostratâ, ad apicem truncatâ; margine ventrali arcuatâ, dorsali rectâ, adscendente; umbonibus contiguis haud elevatis; valvis sub-tumidis radiatim substriatis, posticè sub-costatis, epidermide fuliginosâ, disco nitido: dentibus remotis; cardinalibus elongatis, obliquis, laminatis: margaritâ albâ vel salmonaceâ, limbo iridescente. Long. $3\frac{3}{4}$, lat. $1\frac{1}{2}$, alt. $2\frac{1}{2}$ poll. *Hab.* Newville, Tavoy. Mrs. Vinton.

The general form, convexity and color is that of *Anod. Vondenbuschiana*, Lea, though the largest specimens are more arcuated at base, and the younger ones are more oblong, like U. *complanatus*. The cardinal teeth are like those of U. *marginalis*, a more cylindrical shell, but they are still more elongated.

Dr. Gould offered the following resolution:

Resolved, In token of the respect in which we hold the memory of our late President, for his private worth, his scientific attainments, his labors for the promotion of science generally, and more especially for his long and sincere devotion to the interests of this Society from its origin until his decease; that his son, Amos Binney, who so strikingly bears the image, and who, we trust, inherits the virtues and the tastes of his father, be hereby invited to attend the meetings of the Society, and to share with members the privileges of the Library and Cabinet.

Voted, unanimously.

Dr. Gay, in behalf of the Committee raised at the last Annual meeting to consider the subject of postponing the time of the Annual Address, reported a recommendation, that the third Wednesday of May, being the next meeting after the Annual meeting, be assigned for that purpose.

It was so voted.

A Committee for the nomination of Officers for the next year, was chosen, consisting of Mr. Bouvé, and Drs. Bacon and Gould.

The Finance Committee were instructed to take measures, if necessary, for the increase of the power, granted by the charter of the Society, to hold real estate; and it was

Voted, that the First Vice President be placed on that Committee in lieu of the President, deceased.

Dr. Gay announced the donation, by Francis Alger, Esq. of two hundred specimens of Minerals, to be selected from his Cabinet by the Curator of Mineralogy.

April 21, 1847.

Dr. Cabot in the Chair.

Dr. Gould read descriptions of the following species of Melania, from the Collection of the Exploring Expedition.

MELANIA CYBELE. Testa ovata, turrita, crassa, fuliginosa, epidermide velutinâ induta; spira ad apicem valdè erosa, anfr. superstit. ad 3 planulatis, supernè tabulatis, et pinnis curtis acutis arrectis ordinatim dispositis, coronatis: apertura angusta, elongato-ovalis, posticè angulata; intus livida. Long. 1, lat. $\frac{5}{8}$ poll. *Hab.* Feejees, Navigators, &c.

Probably confounded with M. *amarula*. That shell is lighter colored, shorter, smoother and destitute of the velvety epidermis: the spines are less numerous, longer and sharper and stand out somewhat from a vertical position: in this species they resemble mural battlements.

MELANIA TETRICA. Testa oblonga, turrita, ponderosa, fusca, liris paucis cincta: spira truncata, anfr. superstitibus 3-4 convexiusculis, posticè sub-angulatis et spinis validis acutis 5 ad basim decurrentibus armatis, interdum muticis: sutura profunda: apertura arctè elliptica; intus livida. Long. $1\frac{1}{4}$, lat. $\frac{5}{8}$ poll. *Hab.* Feejee Islands.

More slender than the preceding, and with more convex whorls. It has nearly the same form as M. *bellicosa*, Hinds, but is larger and has fewer spines. It is especially distinguished by its few stout spines directed outwards.

MELANIA TERPSICHORE. Testa elongato-turrita, solidula, olivacea, plagis flexuosis fuscis picta, longitudinaliter creberrimè

plicata, et liris elevatis versus basim crescentibus cincta: spira elevata, ad apicem erosa, anfr. 4 posticè subangulatis: apertura angusta, elliptica, testæ longitudinis trientem adequans; intus cœrulescens. Long. 1, lat. $\frac{2}{5}$ poll. *Hab.* Feejee and Samoa Islands.

Of the same group as the preceding, but more slender, and remarkable for the lyrate appearance produced by its numerous folds, decussated by revolving lines, one of which, more conspicuous than the rest, forms a sort of beaded angle.

MELANIA COROLLA. Testa parva, ovato-conica, fusca: spira acuta, anfr. ad 6 ventricosis, posticè constrictis, angulo submediano aculeos numerosos ordinatim radiantes gerente, instructis; suturâ haud impressâ: apertura rotundata; labiis continuis. Lat. $\frac{2}{10}$, alt. $\frac{3}{10}$ poll. *Hab.* Banks' Peninsula, New Zealand.

This beautiful little shell, somewhat resembling M. *spinulosa*, is readily recognized by its coronets of numerous small radiating prickles on the angles of the whorls.

MELANIA LUTOSA. Testa crassa, elongato-turrita, striis tenuibus cincta, fusco-castanea, et crustâ lævi, lutosâ, crassâ, rubiginosâ, omnino obtecta: spira anfr. 7 superstitibus convexis; suturâ profundâ: apertura obovata, vix effusa, peristomate rufo limbato; fauce livido: operculum crassum, osseum, subspirale. Lat. $\frac{1}{2}$, alt. $1\frac{3}{4}$ poll. *Hab.* Upolu.

This simple and graceful shell, resembling in form M. *Virginica* or M. *decollata*, is easily distinguished by the dark brown margin of the aperture. It is remarkable for the thick crust of mud with which it is covered, and which is so smooth and brown externally, as to seem like the natural surface of the shell. A glance at the tip reveals its real nature.

MELANIA CORPOROSA. Testa subulato-conica, decollata, nitida, olivaceo-castanea, juxta suturam cerina, striis plerumque minimis decussata: spira anfr. ad 5 convexiusculis; suturâ profundâ et marginatâ: apertura angusta, pyriformis, anticè vix producta; intus livida; columellâ albidâ. Long. $1\frac{1}{2}$, lat. $\frac{1}{2}$ poll. *Hab.* Taheiti.

Very nearly the same shape as M. *lutosa*, but is distinguished by its clean, shining, minutely reticulated surface, its pale sutural region, and its narrower aperture, destitute of the deep brown limbus.

MELANIA SCIPIO. Testa magna, solida, lanceolata, truncata, picea, sursum rufescens et flammulis longitudinalibus fuscis magis ac magis picta (juvenibus valdè subulatis et epidermide tomentoso quoque indutis) creberrimè et minutissimè decussato-striata : spira anfr. superstitibus 4-5 (integris 12-15) planulatis, obliquis ; suturâ impressâ et marginatâ : apertura triangularis, valdè effusa, posticè sub-canaliculata ; regione columellari tumido ; columellâ planulatâ, acutâ, albâ : intus plumbea. Long. $1\frac{1}{2}$, (integer 3) lat. $\frac{1}{2}$ poll. *Hab.* Samoa and Feejee Islands.

About the size and form of M. *funiculus*, Quoy, but has a longer and more acute aperture. M. *aspirans*, Hinds, is still larger and more solid, less convex whorls, a darker and less variegated surface. Besides its dark pitchy color changing towards the tip to flammulated fawn color covered by a velvety epidermis, it may be known by its minute, close set revolving lines.

MELANIA VAINAFA. Testa elongato-conica, lævis, badia (junioribus herbaceis et lineolis flexuosis fuscis pictis) : spira decollata, anfr. 4-5 superstitibus, subplanulatis, ultimo plerumque striis distantibus cincto ; suturâ marginatâ : apertura ovata, testæ quadrantem æquans. Long. $\frac{7}{8}$, lat. $\frac{3}{10}$ poll. *Hab.* Falls of Vainafa, Upolu.

It has the form and general color of small, smooth specimens of M. *Virginica*, but the whorls are more flattened, and the front of the aperture is more rounded.

MELANIA SCITULA. Testa gracilis, elongato-conica, decollata, epidermide piceo induta : spira anfr. superstitibus ad 5 valdè convexis, supernis longitudinaliter plicatis, infernis spiraliter liratis, præcipuè juxta suturam et ad basim : apertura obovata, quadrantem testæ haud aquans, anticè aliquanto producta ; fauce livido. Long. $\frac{7}{8}$, lat. $\frac{1}{4}$ poll. *Hab.* Upolu.

It has the form and size of M. *abjecta*, Hald., from Alabama, also of M. *truncatula*, Lam. It is more robust, paler, and the folds are more prominent and on more whorls than in M. *plicata*, Lea.

MELANIA SILICULA. Testa parva, gracilis, sub-cylindrica, truncata, epidermide fusco-castaneo induta : spira anfr. ad 4 superstitibus, rotundatis, spiraliter liratis, supernis longitudinaliter pli-

catis; ultimo fusco-zonato; suturâ benè impressâ; apertura rotundato-ovata, anticè vix producta; fauce subviolaceo. Long. $\frac{1}{2}$, lat. $\frac{1}{5}$ poll. *Hab.* Nisqually, Oregon.

Very much like the preceding, but considerably smaller, more cylindrical, the whorls more plaited, and a band on the basal one. It resembles M. *proxima*, Say, which is less cylindrical and without folds.

MELANIA BULBOSA. Testa parva, conico-oblonga, nitida, decollata, fusco-viridis: spira anfr. superstitibus 2-3 rotundis; suturâ profundâ: apertura ovato-rotundata, vix effusa. Long. $\frac{1}{2}$, lat. $\frac{8}{20}$ poll. *Hab.* Columbia River.

The whorls are very cylindrical, so as to appear like a succession of bulbs. It is much like M. *perfusca*, Anthony; but in that the whorls slope gently to the suture. A broken specimen shows that it often attains a considerable size.

MELANIA FURFUROSA. Testa turrita, ovato-pyramidata, tenuis, scabriuscula, dilutè fulva, et propè suturam fusco maculata, striis arcuatis incrementalibus et striis volventibus tenuissimis decussata: spira integra, anfr. 7 rotundatis, confertis, supernè sub-tabulatis; ultimo magno, ventricoso; supernis obliquè plicatis: apertura lunata, ad columellam effusa. Long. $\frac{3}{4}$, lat. $\frac{3}{8}$ poll. *Hab.* Manila.

Allied to M. *scabra*, which is more elongated, and its whorls much less cylindrical, its striæ coarse and distant, and crowned with spino-tubercles.

MELANOPSIS ZELANDICA. Testa solida, ovato-conica, nitida, olivacea, fusco-trifasciata: spira conica, brevis, acuta; anfr. 3, supernis planulatis et ad suturam confluentibus; ultimo magno, posticè planulato, anticè ventricoso: apertura elliptica, cœrulescens, rufo-fasciata, posticè in canalem obducta; labro acuto: columella valdè arcuata et excavata, posticè callo tuberculoso copioso instructa. Long. $\frac{9}{10}$, lat. $\frac{9}{20}$ poll. *Hab.* New Zealand.

Compared with M. *prærosa*, Lin., it is more plump, has but 3 instead of 6 or 7 whorls, the aperture proportionally longer: the columella remarkably arched; and the surface and aperture are banded with dark chestnut.

Dr. Wyman remarked, in reference to the Podura, found in the Alpine snows, mentioned at the last meeting, that a friend informed him that he had observed an insect in the snow in this State, known to the common people under the name of "Snow-flea."

Dr. Wyman exhibited fossil Teeth, from the Tertiary of Virginia, of *Carcharias megalodon.*

Dr. Gould mentioned, that he had observed, in turning over Jardine's Naturalist's Library, that the Moose, which Mr. Agassiz has lately distinguished from the European species by the name of C. *lobatus,* was already distinguished by Richardson as C. *Americanus.*

Dr. Cabot mentioned, that he had lately found a specimen of Anas discors, in market, in full plumage. He had never before met with one at this season, and believed them very rare in this region. Mr. J. Eliot Cabot remarked that these birds move to the South by the sea-coast, but return by some other route. They breed along the great lakes and the coast of Maine.

Mr. Emerson, in behalf of the Committee on Finance, reported that on examination of the Charter of the Society, it did not seem necessary to ask for increased power to hold property, in consequence of the contemplated purchase of a building. It was believed the powers already granted by the charter were ample for the purpose.

A letter of condolence, on the lamented death of our late President, addressed to the Society, by the Academy of Natural Sciences of Philadelphia, was read, and committed to the Corresponding Secretary.

Drs. Abbot and Bigelow were chosen a Committee to make arrangements for the Annual Meeting.

Rev. Theodore Parker was nominated for membership by Mr. J. Eliot Cabot.

ADDITIONS TO THE LIBRARY.

Gray's Genera of Birds. Part 35, long 4to. London, 1847. *Audubon Fund.*

Annals and Magazine of Natural History. No. 125. 8vo. London, 1847. *Courtis Fund.*

Magazine of Horticulture. No. 148. 8vo. Boston, 1847. *C. M. Hovey, Editor.*

Annals of the Lyceum of Natural History of New York. Vol. IV. Nos. 8, 9. 8vo. New York, 1847. *Lyceum.*

Transactions of the American Philosophical Society. Vol. IX. Part 3. 4to. Philadelphia, 1847. *The Society.*

The Magazine of Horticulture, and Report of Agricultural Society, were committed to Mr. Teschemacher.

The Transactions of the American Philosophical Society were committed to Dr. Bacon;

Lyceum of Natural History of New York, to Dr. Wyman.

May 5, 1847.

ANNUAL MEETING.

Dr. C. T. Jackson, Vice President, in the Chair.

Reports of Curators were handed in; and, on motion, the reading of them was postponed to the next meeting.

The Committee for the nomination of Officers for the ensuing year reported, and the Society proceeded to the election, which resulted in the choice of the following gentlemen.

President,
John Collins Warren, M. D.

Vice Presidents,
Charles T. Jackson, M. D. D. Humphreys Storer, M. D.

Corresponding Secretary,
Augustus A. Gould, M. D.

Recording Secretary,
Thomas Bulfinch.

Treasurer,
Patrick T. Jackson, Jr.

Curators,

T. William Harris, M. D.	*Of Entomology.*
J. E. Teschemacher,	*Botany.*
Martin Gay, M. D.	*Mineralogy.*
Jeffries Wyman, M. D.	*Icthyology and Herpetology.*
N. B. Shurtleff, M. D.	*Comparative Anatomy.*
Thomas T. Bouvé,	*Geology.*
Samuel Cabot, Jr., M. D.	*Ornithology.*
John Bacon, Jr., M. D.	*Conchology.*

Librarian,
Charles K. Dillaway.

Cabinet Keeper,
Samuel Kneeland, Jr., M. D.

Prof. C. B. Adams presented a Synopsis of five species of Shells from Jamaica, supposed to be new. They were Triton parvus, Cerithium gemmulosum, Lucina ornata, L. subglobosa, L. pectinata.

Prof. A. also submitted "Corrections of the Nomenclature of some species of Shells."

Prof. A. presented two Aculei of large size. He stated that they were from an exogenous tree, whose botanical name was unknown to him, but which was called by the country people "Prickly Yellow." The thorns were an elongation of the cuticle, and easily knocked off.

Mr. Bouvé nominated Charles J. Sprague for election into the Society.

Rev. Theodore Parker was elected a member of the Society.

May 19, 1847.

The President in the Chair.

The Annual Address having been assigned for this day, a numerous and respectable audience of members and friends of the Society were in attendance.

The Reports of Curators were presented and read by Dr. Storer, Vice President; an abstract of which follows.

The Curator of *Botany* reports, That the additions to the Botanical Collection of the Society are confined to a small, but excellent Herbarium of Plants, collected in the vicinity of Apalachicola, containing several rare and beautiful species, viz. Bletia aphylla, Aceratus viridis, four species of Sarracenia, Tarrega taxifolia, an undescribed Gerardia, and an undescribed Justicia, &c.

The Curator of *Comparative Anatomy* reports, That his department of the Cabinet continues to be increased by the addition of new specimens, both from foreign and domestic sources; particular mention of which will be found in the printed Proceedings of the Society.

The Curator, in anticipation of the labor necessarily attendant on the removal of the Collection to a new hall, which it is hoped may be accomplished before another Annual Meeting, calls on those who have heretofore labored in this department, to renew their efforts; and invites other and younger coadjutors to lend their aid.

The Curator of *Icthyology* and *Herpetology* reports, That in consequence of the insufficiency of room in the Society's Hall, no changes have been practicable in the general arrangement of the Specimens belonging to these departments; and that, as in years past, a large number of valuable specimens, especially of Reptiles, are still necessarily withheld from public exhibition.

Valuable additions have been made to the Cabinet during the past year, for which the Society is more especially indebted to

the Rev. Mr. Mason of Burmah, and to Dr. F. W. Cragin of Surinam; especially to the latter gentleman, who has continued to be, as for several years past, one of our most liberal benefactors.

The Curator of *Mineralogy* reports that the Cabinet of Minerals has been increased by only a few specimens. There are some specimens of Copper, that have not been particularly noticed before, and a beautiful specimen of Oxide of Tin. A donation of two hundred specimens has been promised by Mr. F. Alger, and they will be selected by the Curator as soon as a place shall be ready for them in the new building. Other donations have been promised to be made to the Society at the same time.

The Curator of *Ornithology* reports, That the present state of the Collection belonging to his department is one of safety at least, if not of usefulness; that is to say, with the exception of about one-third, displayed in the glass cases, our Collection of Birds is, after having been thoroughly baked and poisoned, carefully sealed up and stowed away in the garret, for want of more fitting accommodations. To preserve them from the Dermestes, which were making most fearful ravages in spite of all previous precautions, including the immersion of each specimen in a strong tincture of corrosive sublimate, as recommended by Waterton; the Curator resorted to this measure as a temporary expedient. The addition of twenty-seven or twenty-eight specimens from our indefatigable friend, Dr. Cragin of Surinam, has been received the last year. The purchase of eighteen specimens of Cayenne Birds, which are wanting to the Collection, and are now to be procured on reasonable terms, is recommended.

The *Librarian* reports, That he has received, since the last Annual Meeting, twenty-six volumes and seventy-five pamphlets or parts of volumes. Among the most valuable acquisitions, are Gray's Genera of Birds, Milne Edwards's Histoire des Crustacées, Gould's Monograph of the Odontophorinæ, and Owen's History of British Fossil Mammals and Birds. The number of Books received the past year is not so great as that of the preceding year; the value of them, however, is fully equal.

Dr. Storer, Vice President, remarked as follows:

"No one must infer, from these Reports of the Curators, that

any less interest has been felt than in preceding years. They have been as desirous as ever of enriching our Collection, of advancing their favorite departments; but they have been literally compelled, not merely to refuse to receive specimens, which have been offered to them, but also to refrain from arranging those already belonging to the Society, for want of space.

"For several years the insufficiency of our accommodations has been keenly felt by the members of this Society. During the last year, our late much-lamented President determined to make an effort to procure a suitable building to contain our Collections. He commenced his task, and had obtained subscriptions to the amount of several thousand dollars, when his feeble health compelled him to leave for Europe. Since his departure, the effort has been continued by others, and is now in progress, with a fair prospect of success."

Dr. Storer paid a fervent tribute of respect to the memory of the late President, and warmly welcomed his successor to the seat he was now occupying, and pledged the hearty coöperation of his brother members and himself to advance the prosperity and usefulness of the Society.

The President, Dr. Warren, replied, acknowledging the kind welcome given him, and expressing his gratification at the honor conferred upon him by his election to that office.

He remarked, that early in life he had felt deeply interested in Natural History, and would gladly have devoted a large share of his time and powers to its studies, but the particular departments of Anatomy and Surgery, which, at that time, were in a very imperfect state in this country, demanded all his faculties, and it was not till of late years that he had felt that he had any time to bestow on the special branches of Natural Science. He had, however, from the publications of this Society and from intercourse with its members, derived frequent aid in his own studies, and been led to form a high estimate of the usefulness of the Society and of the value of its labors. He promised to give his hearty coöperation with his brothers of the Society in promoting their common objects.

The Address by Dr. A. A. Gould then followed. It was principally occupied with a notice of the Life, Character, and Labors of the late President of the Society, Amos Binney. Remarks on the Study of Natural History followed; and it closed with an account of the effort now being made for procuring a suitable edifice for the Society; congratulating the members on the prospect of their next Annual meeting being held in an edifice better adapted to their wants, and more worthy of their past and future labors.

On motion of Mr. Alger, the thanks of the Society were voted to Dr. Gould, for his interesting and able Address; and the Publishing Committee were directed to request a copy for the press.

The Treasurer's Report was then read, by which it appears that the

Receipts for the last year, including balance from 1846, are	$499 22
Expenditures for the same time . .	499 26
Balance due the Treasurer . . .	4
From the Courtis Fund there has been received, including balance from last year . .	$555 51
Expended	358 26
Balance to credit of Courtis Fund . .	197 25

The Report was committed to a Committee, consisting of B. A. Gould, and Charles C. Sheafe, Esqrs., for examination.

Charles J. Sprague was elected a member of the Society.

Dr. Phelps, of Windsor, Vt., and Dr. Lewis R. Gibbes, of Charleston, S. C., were elected Corresponding Members.

Mr. J. W. Appleton was nominated for election as a member, by Dr. Gould.

ADDITIONS TO THE LIBRARY.

Proceedings of Providence Franklin Society. Vol. I. No. 2. 8vo. pamph. Providence, 1847. *P. F. Society.*

Gray's Genera of Birds. Part 36. Long 4to. London, 1847. *Audubon Fund.*

Annals and Magazine of Natural History. No. 126. 8vo. London, 1847. *Courtis Fund.*

N. B. Ward on the Growth of Plants, in closely glazed cases. 8vo. London, 1842. *Author.*

Silliman's American Journal of Science and Arts. No. 9. 2d Series, Vol. III. 8vo. New Haven. *Editors.*

Proceedings of Academy of Natural Sciences of Philadelphia. Vol. III. Nos. 6 and 7. 8vo. pamph. Philadelphia, 1847. *Academy.*

Proceedings of Zoological Society of London. Parts 12, 13, 14. May, 1844, to April, 1846. *Zoological Society.*

Reports of the Council and Auditors of the London Zoological Society, for 1845–6. *Zoological Society.*

Magazine of Horticulture. No. 149. For May, 1847. 8vo. pamph. Boston. *C. M. Hovey, Editor.*

Gray's Genera of Birds. Part 37. Long 4to. London, 1847. *Audubon Fund.*

Annals and Magazine of Natural History. Nos. 127, 128. 8vo. London, 1847. *Courtis Fund.*

May 27, 1847.

A Special Meeting was holden at the house of the President, to take further measures in relation to the procurement of a building.

The President in the Chair.

Voted, That the Treasurer be authorized and directed to collect the moneys which have been subscribed for the purchase of a building for the Society.

Voted, That the Building Committee be authorized to conclude the purchase of the Medical College in Mason Street.

Voted, That said Committee be enlarged by the addition of the Treasurer, and requested to continue their efforts to increase the subscription to the necessary amount.

Voted, That the President, with the Committee, be instructed to prepare a Circular, embodying the facts relating to the subject, and to distribute it among the friends of the Society.

Voted, That the President be authorized and requested to confer with other gentlemen, not members of the Society, and with them to concert measures for the accomplishment of the object in view.

June 2, 1847.

The President in the Chair.

Dr. Wyman exhibited Preparations of the Spines, from the head of the *Lophius Americanus*, Cuv., showing their peculiar mode of articulation, by means of two rings of bone, resembling the links of a chain. The ring belonging to the movable spine is in many specimens made up in part of ligament.

He exhibited a fœtus of the *Acanthias Americanus*, Storer, the vitelline sac being still suspended from the abdomen. He had taken a large number from the oviducts, and found them nearly all in a corresponding stage of development. There were none in an earlier stage, except a few instances where the vitellus only existed in the duct, but the process of development had not commenced. One specimen was captured swimming in the water, with the vitellus still pendent.

Dissections of the fœtal and adult brain were also exhibited, the former contrasting with the latter in having the olfactory lobes in contact with the hemispheres, and these last proportionally much smaller, more oval, and more closely resembling the optic lobes in form and size.

The interior of the oviduct presented a peculiarity which is interesting in connection with the mode of development of the genus. The mucous membrane is thrown into longitudinal folds, and each fold provided with numerous vascular loops, which lying in contact with the vessels on the surface of the vitelline sac, would assist in revivifying the blood of the fœtus, and thus forming an imperfect placenta. Muller has demonstrated the union of the vitellus and the vascular surface in the Emissole, and thus forming a much nearer approach anatomically and physiologically to a true placenta. This peculiarity is in accordance with the view taken by Agassiz and Owen, that the Plagiostome fishes are more nearly allied to the higher vertebrata than they were supposed to be by Cuvier.

The President read a letter from M. Alcide d'Orbigny, acknowledging the receipt of the Society's Proceedings, and announcing the donation of a work of his, now in progress, on French Paleontology, and soliciting contributions of American specimens.

Dr. Storer read a letter from Mr. N. M. Hentz. He announces that he has made several additional discoveries, and has many new descriptions and designs, which will form an Appendix to his paper on Araneides, now publishing in the Journal.

Dr. Storer read an extract of a letter from Dr. F. B. E. Brown, of Apalachicola, Fa., as follows:

"I have the pleasure of forwarding a specimen of the *Ophiosaurus striatulus*, Jointed or Glass Snake, of this country. It is the first one I have ever seen unbroken. In catching them they will often strike with the tail, which will fly off like a pipe-stem. They are quite innocent. Found near low grounds, subsisting chiefly on bugs and worms; are fond of being near rice fields. This was caught and presented to me by my friend, Dr. Chapman."

Dr. Gould, in behalf of Mr. T. J. Whittemore, presented a beautiful shell of *Testudo radiata.*

Dr. G. read a letter from Dr. J. Lawrence Smith, communicating the fact that he is now located at Constantinople, in the employment of the Turkish government, and is desirous of procuring specimens of American Minerals and Fossils, for the purpose of establishing a Cabinet in that city, and offers to reciprocate by the exchange of specimens from that country.

Dr. G. placed on the table a fine Engraving of the late Prof. De Candolle, sent to Prof. Gray, with others, by the son of De Candolle, for distribution as he should judge expedient.

The President proposed that a considerable addition be made to the members of the Society, by the election of gentlemen who would be likely to advance the interests of the Society. The subject was referred to a Committee consisting of Drs. Gould, Wyman, and Kneeland.

The President proposed the following gentlemen for election as members: Thomas H. Perkins, John Welles, Amos Lawrence, Abbott Lawrence, Samuel Appleton, William Appleton, Nathan Appleton, Francis Appleton, William Lawrence, David Sears, William Amory.

Mr. J. W. Appleton was elected a member of the Society.

June 16, 1847.

Dr. Storer, Vice President, in the Chair.

Dr. Wyman read extracts from a letter from Mr. Squier, containing the results of his late investigations of the Indian Mounds of the West. Dr. W. exhibited specimens of Beads and other relics, and remarked upon the nature of the material of which they were composed.

Dr. Gould presented descriptions of the following Shells, from the collection of the Exploring Expedition.

NERITINA PORCATA. Testa obliqua, sub-hemispherica, solidiuscula, fusco-rubricans, maculis parvis nigris interdum tessellata, longitudinaliter striata et rugis conspicuis ordinatis sub-imbricatis porcata: spira vix tumida, anfractu ultimo penitus involuta; apertura parva, lunata; labro callo aurantiaco intus munito; labio plano, amplo, sanguineo; columellâ arcuatâ, denticulatâ. Diam. $\frac{7}{10}$, alt. $\frac{1}{2}$ poll.

Like N. *Bruguieri* and *canalis*, it has the spire wholly involved in the last whorl. The former has a somewhat elevated spire, a larger aperture, and a smooth and silky instead of a ridged surface. The latter is distinct by the canal which winds along the suture.

NERITINA CHOLERICA. Testa obliquè semiglobulosa, solidula leviter striata, castaneo-fusca, subtus interdum lineolis flexuosis nigris picta; spira vix exserta, ultimo anfractu recurrente ferè involuta: apertura obliquè semicircularis, magna, posticè canaliculata; labro flavo; labio planulato extrinsecus sanguineo tincto; columellâ albâ, valdè sinuatâ, denticulatâ. Operculum tenue, lividum, sulco divisum, granulatum, ad apicem flavidum. Diam. $\frac{3}{4}$ poll. *Hab.* Feejee Islands.

Allied to the dark varieties of M. *dubia*, but distinct by its involved and girded spire, like N. *Bruguieri*, and also by its very sinuous and strongly-toothed pillar lip. It has a channel towards the spire much like N. *canalis*, whose color and marking of the ventral face it also resembles.

NERITINA CHRYSOCOLLA. Testa solida, obliqué conico-globosa, coracina, lineis exilibus obliquis flavidis flexuosis picta: spira elevata, erosa; anfr. 2-3 ventricosis, infra suturam aliquid constrictis; apertura obliquè semi-elliptica; labro cœruleo, viridi limbato; labio convexo, luteo-virente; columellâ sinuatâ, denticulatâ: operculum osseum, salmonaceum, costâ bisectum. Long. $\frac{3}{4}$, lat. $\frac{3}{5}$, poll. *Hab.* Upolu.

Of the same group as N. *communis*, *lugubris* and *helvola*, but distinct by its green, blue-edged outer lip and yellowish green pillar lip, as well as by its very delicate zigzag lines, scarcely seen except on the ventral face.

NERITINA HELVOLA. Testa solida, conico-globosa, polita, coloribus fuscis et cervinis plerumque fulgurantibus diversimodè picta: spira prominula, erosa, anfr. 2 superstitibus: apertura obliquè semicircularis, helvola; columellâ convexiusculâ, callo copioso indutâ, acutè denticulatâ. Long. $\frac{6}{8}$, lat. $\frac{5}{8}$ poll. *Hab.* Feejee Islands.

Closely allied to N. *communis*, but is rather more globular, and generally smaller, and the aperture has a more nearly circular outline. It has less brilliant and defined coloring, and is always to be distinguished by its eroded tip, and the bright carnelian color of its inferior face.

NERITINA SIDEREA. Testa parva, ovata-globosa, polita, nitida, nigra, punctis sparsis albis notata: spira prominula, erosa; anfr. 2-3; suturâ marginatâ: apertura semicircularis, intus cœrulescens; labio plano, angusto, luteo; columella acuta, vix denticulata. Operculum fuscum. Diam. $\frac{1}{4}$ poll. *Hab.* Feejees.

About the size of N. *Bœtica*, but more globose and solid; the inner lip less extended, and yellow instead of bluish, and it also has the white specks by which alone it may be recognized. In N. *Bœtica* the opercle is flesh-colored.

NERITINA AMŒNA. Testa parva, ovato-triangularis, posticè constricta, striis incrementalibus ordinatis benè insculpta, coloribus nigris, rubris, flavidis plerumque fasciatim dispositis, et maculis quadratis albis nigro-umbratis tessellatim dispositis, picta: spira planulata, erosa, anfr. 2-3; apertura rotundato-elliptica, flavo-viridis; labro angusto, plano; columellâ valdè arcuatâ, 10 denticulatâ. Operculum viridulum, inornatum. Axis $\frac{3}{16}$, lat. $\frac{2}{8}$ poll.

NERITA MUSIVA. Testa modica, subsolida, transversa, ovoidea, ventricosa, fusco-cinerea, longitudinaliter crassè striata, sulcis volventibus ordinatis arata, liris interpositis planulatis, sub-granulosis, lineolis crebris albidis sectis: apertura sub-circularis, caliciformis, peristomate sub-continuo: labro edentulo, albo, sulcis obliquis fuscis tenuiter arato; labio concavo, fusco, granulis paucis notato, denticulis tribus instructo. Axis $\frac{1}{2}$, lat. $\frac{5}{8}$ poll.

This unusually-shaped Nerite looks like a Stomatella, with the whorls rounded in every direction, when viewed at the back. Its

general form is somewhat like N. *signata*. It is remarkable for its nearly circular, cup-shaped aperture, its shining black, finely granulated concave pillar, and its gray, minutely mosaic surface produced by the white lines crossing its ridges.

NATICA LEWISII. Testa magnifica, solidiuscula, conico-globosa, albida, epidermide sordidè stramineo induta, lineis minimis, confertissimis, flexuosis cincta; anfr. 6 ventricosis posticè valdè constrictis: apertura obovata, ampla; callo copioso albo castaneo-tincto supra umbilicum modicum simplicem profundum circumfluente, ad anfractum ultimum munita; fauce incarnescente. Operculum corneum. Axis 4½–5, lat. 4 poll. *Hab.* Puget Sound.

This certainly exceeds in size all other species yet discovered. It is allied to N. *heros*, some specimens of which occasionally approach it in size. It is however less globular, and distinguished by the remarkable constriction near the suture. Specimens were brought from the mouth of the Columbia, by Lewis and Clarke, and have been designated by the above name.

NATICA CAURINA. Testa parva, solida, levigata, globoso-ellipsoidea, albida, epidermide tenui stramineo induta, vix perforata: spira obtusa, erosa, anfr. 4½, ultimo sub-tabulata, anticè subcontracta; apertura parva, semilunaris; columellâ rectâ, posticè callo copioso albo indutâ. Axis ½, diam. ⅖ poll. *Hab.* Straits of De Fuca.

Nearly the same as N. *impervia*, Phil. from Cape Horn, which has a very depressed spire, and its umbilic closed by a semicircular callus. Its form and color is like N. *immaculata*, Tott., though it is much larger. It is more solid and less globular than N. *Grœnlandica*.

NATICA SOLUTA. Testa parva, globosa, sordidè alba, striis tenuissimis cincta: spira anfr. 5 ventricosis, supernè sub-tabulatis; sutura profundissima; apertura semilunaris, angulo postico callo firmato; labio acuto, tenui, ad basim incrassato, subeffuso: columella recta, callosa, post umbilicum parvum profundum dilatata. Diam. ½ poll.

A small, nearly globular shell, allied to N. *borealis*, Gray, and N. *globosa*, King, but distinguished by its deep-channeled suture.

Dr. Shurtleff nominated for membership Henry B. Humphrey, Esq.

Dr. Storer announced a bequest of ten volumes, from the Library of the late Judge Davis.

Prosperi Alpini de Plantis Ægypti Liber. 4to. Venetiis. 1592.

Cuvier. La Regne Animal, distribué d'après son organisation. 8vo. 4 vols. in 3. Paris, 1817.

Blainville. Manuel de Malacologie et de Conchyliologie. 8vo.; 2 vols. Paris, 1817.

Montfort. Conchyliologia Systematique et Classification Methodique des Coquilles. 2 vols. 8vo. Paris, 1808.

Nic. Josephi Jacquin Selectorum Stirpium Americanarum Historia. 8vo. Manhiemii, 1788.

Deshayes, G. P. Description de Coquilles characteristiques des Terrains. 8vo. Paris, 1831.

ADDITIONS TO THE LIBRARY.

Gray's Genera of Birds. Part 38. Long 4to. London, 1847. *Audubon Fund.*

Audubon and Bachman. Quadrupeds of America. Plates, 106–110. Folio. *Subscribers.*

Discovery by C. T. Jackson, M. D., of the Applicability of Sulphuric Ether in Surgical Operations. By M. Gay. 8vo. pamph. Boston. *Author.*

Proceedings of Academy of Natural Sciences of Philadelphia. Vol. III. No. 8. March and April, 1847. *Academy.*

Some Account of the Letheon; or, Who was the Discoverer? By Edward Warren. 8vo. pamph. Boston. *Author.*

Paleontologie Française. Description Zoolog. et Geolog. de tous les Animaux Mollusques et Rayonnés Fossiles de France. Par Alcide d'Orbigny. 122 Livraisons. 8vo. Paris, 1842–6. *The Author.*

Bulletin de la Société Geologique de France. Vols. 1, 2, and Parts 1–8. Vol. III. 8vo. Paris, 1844–6. Deuxième Serie. *Geological Society of France.*

July 7, 1847.

Dr. Cabot in the Chair.

Dr. Kneeland presented a Cranium of *Coryphœna*, Lin. The fish was taken by Dr. K. with hook and line, about midway of the Atlantic ocean. Length 3 feet. The head is much elevated, and both palate and jaws furnished with teeth.

Dr. Kneeland read from the Illustrated News, the remarks of Mr. Smee, respecting the *Aphis vastator*, to which is attributed the disease of the Potato plant.

Dr. Gould read extracts from a letter of Dr. G. A. Perkins, of Cape Palmas, accompanying which were specimens of Shells, &c.

Dr. P. speaks of the difficulties which attend the pursuits of the naturalist in that country, and adds his own experience. A box of Shells, prepared for his Boston friends, had been invaded by the Termites, who ate out the paper packing, and deposited in its place their insoluble mortar, cementing the whole together, and spoiling the work of months. Among the specimens sent were a bivalve shell, (Psammobia?) with three adductor muscles, and an Orbicula, which he supposes may be a new species.

Dr. Gould, in behalf of the Committee to which was referred the subject of enlarging the number of members of the Society, reported the following vote, which was adopted.

"That the thanks of the Society be given to the gentlemen who have contributed to the fund for procuring a building for the Society, and that those whose contributions amount to fifty dollars, be notified that they are recognized, agreeably to the Constitution of the Society, as its *Patrons;* that they will be entitled to the use of its Library and Cabinet, as members; and that the hope be expressed to them, that they will continue to manifest an interest in the objects and prosperity of the Society."

Dr. Storer communicated, from Mr. Hentz, the conclusion of his paper on *Araneides*, for the Journal.

Mr. Henry B. Humphrey was elected a member of the Society; Mr. Edward Desor, and Count Francis de Pourtalès of Neufchatel, were elected Corresponding members.

July 21, 1847.

Dr. Storer, Vice President, in the Chair.

Dr. Storer stated, that he had made a visit of a few days at Provincetown, where he had found, as he believed, two new species of *Alosa* and one of *Platessa*.

ALOSA CYANONOTON. Above bluish, cupreous upon the sides and opercula, silvery beneath; a large black spot upon the shoulder. Where the scales were removed, no other spots are observed, as in the A. *sapidissima*, but the entire upper portion of the body is of a deep greenish blue color. The length of the head is less than one-fifth the length of the body. Caudal pouches. Length ten inches. Called *Blue-back* by the fishermen at Provincetown. D. 17, P. 18, V. 10, A. 17, C. 20.

ALOSA LINEATA. Sides silvery, with six or eight indistinct longitudinal bluish lines; the pectoral and caudal fins are of a dark brown color, the anal and ventrals nearly white. The head equal in length to about one-fifth the entire length; the lower jaw the largest; the chin is prominent. Caudal pouches. Length about fifteen inches. Called by the fishermen *Hickory Shad*. D. 17, P. 16, V. 8, A. 20, C. 20.

PLATESSA QUADROCELLATA. Body elongated: the length of the head is not quite equal to one-fourth the length of the entire fish. Of a gray color, thickly spotted with brown, including all the fins. About the middle of the body, just beneath the dorsal fin, and directly opposite this, above the anal fin, are situated two large, nearly black ocelli, surrounded by a pinkish halo; at the base of

the caudal fin are two similar smaller ocelli. The caudal fin is large and angular. Length of species about sixteen inches. D. 86, P. 18, V. 10, A. 76, C. 17.

Dr. S. also read, from his notes, taken on the spot, interesting details relating to the Mackerel Fishery. He mentioned, that immense numbers of Whiting, taken in the mackerel nets, are thrown away as useless. Prof. Agassiz expressed his surprise at this fact, and said, that in Europe the Whiting was considered a valuable fish for the table, and preferred to Cod.

Dr. Wyman exhibited a Cranium of *Delphinus globiceps*, having the first four cervical vertebræ connected by anchylosis, as was also the atlas with the occiput. This he considered to be a morbid state of the parts; as in more than twenty other remains of the same portions of the skeletons, which he had found at the same time and place, viz. the beach at Provincetown, on a late visit, no such anchylosis existed.

Prof. Agassiz remarked, that the specimen was interesting as showing an analogy between the Cetacea, the lowest order of the Mammalia, and Fishes, in respect to the shortness and immobility of the cervical vertebræ.

Prof. Agassiz also remarked on the fortunate position of Boston naturalists, in their location at a seaport. In this case, Dr. Wyman had had an opportunity to correct the inferences drawn from an abnormal specimen, by immediate comparison with numerous others. No universities in Europe, excepting those of Naples and Greifswald, are situated upon the immediate seacoast. Marine species have to be described from single specimens, sent to naturalists, residing at a distance from the sea; and such descriptions are apt to be rather portraits of individuals than definitions of species.

Dr. Gould announced the reception of a box from Dr. J. Lawrence Smith, at Constantinople, containing Birds and Crustacea.

He hailed with pleasure this first step to an interchange of specimens of natural productions with the Turkish empire. He

expressed a hope that some of our number would make a return in kind to Dr. Smith. At his motion, the thanks of the Society were voted to Dr. Smith.

Dr. Wyman announced the reception of a large and beautiful specimen of *Selenite* from California, presented by John Henderson, Esq. of St. Louis. On his motion, the thanks of the Society were presented to the donor.

Dr. Wyman also announced, from Dr. Savage, several Crania, and other important bones of Chimpanzée, and a Nest of Termes bellicosus; with other specimens, animal and vegetable. Thanks were voted to Dr. Savage for these donations.

Joshua Tucker, M. D., Edward R. Dearborn, and John T. Heard, were elected members.

August 4, 1847.

Dr. Storer, Vice President, in the Chair.

Dr. Wyman exhibited donations, from Dr. Savage, of objects from Africa, viz. Nest of *Termes bellicosus;* Fruit of *Adansonia digitata;* Nuts of the *Elais Guineensis*, or Oil Palm-tree, on which the Chimpanzée feeds; native Cloth, from the bark of a species of Ficus; Teeth and Tusk of an African Elephant. He also exhibited four Crania of *Troglodytes niger*, and four Crania and other important bones of a species of Troglodytes hitherto undescribed.

Dr. Cabot asked leave to make arrangements to have mounted all the birds now in the drawers, preparatory to their removal to the new hall. Leave was given, on condition that so much of the expense of said arrangement, as shall exceed the due proportion of the Society's funds, applicable to that department of the Cabinet, shall be provided by Dr. Cabot from other sources.

Dr. Shurtleff moved, that the Curators of Herpetology and Comparative Anatomy, have leave to expend upon their departments such sums as may be necessary to fit them for removal, under the same condition as was annexed to the vote just passed, in regard to the department of Ornithology. It was so voted.

It was voted, that the care of the removal of the Collection, in its various departments, and its re-arrangement in the new hall, be committed to the Curators of each department, in conjunction with Dr. Shurtleff.

A fine specimen of Selenite from California, presented by Mr. John Henderson, was committed to the Curator of Mineralogy.

The Vegetable specimens, presented by Dr. Savage, were committed to the Curator of Botany.

August 18, 1847.

Dr. Storer, Vice President, in the Chair.

Dr. J. Wyman read a communication from Dr. Thomas S. Savage, describing the external character and habits of a new species of Troglodytes (T. *gorilla*, Savage,) recently discovered by Dr. S. in Empongwe, near the river Gaboon, Africa.

This animal is known to the natives under the name of Engēena, and is much larger and more ferocious than the Chimpanzée. Its height is above five feet; but it is remarkable for the disproportionate breadth of the shoulders, which is double that of the Chimpanzée. The hair is coarse, and black, except in old individuals, when it becomes gray. The head is longer than that of an ordinary man by two inches, and is remarkable for having a crest of coarse hair over the sagittal suture, which meets at right angles a second, extending over the upper part of the occiput,

from one ear to the other. The fore-arm is much shorter than the arm, the hand is remarkable for its great size, and the thumbs larger than the fingers. A slight tuft of hair exists at the extremity of the *os coccygis*—no tail, no callosities. Its gait is awkward and shuffling, supporting itself on the feet and fingers, and palms of the hands; but not, like the Chimpanzée, resting on the knuckles.

They live in herds, the females exceeding the males in number. Their habitations, like those of the Chimpanzée, consist of a few sticks and leafy branches, supported by the crotches and limbs of the trees, which afford no shelter, and are occupied only at night. They are exceedingly ferocious, and objects of terror to the natives, who seldom encounter them except on the defensive. The killing of a Engēena is considered an act of great skill and courage, and brings to the victor signal honor. Its intelligence is said to be inferior to that of the Chimpanzée.

The *Amomums*, in Empongwe, which constitutes, in every locality of the African Orangs, a prominent article of food, Dr. S. found to be of different species from those of Cape Palmas. At the latter place but one species, and a variety with acid pulp, is known; but at Empongwe three. Fruits, distinguished by the opposite properties of acidity and sweetness, are eaten with equal zest. The stem of the *Saccharum officinarum*, the fruit of the *Elais Guineënsis*, *Carica papaya*, *Musa sapientium*, and others, unknown to botany, furnish its articles of food.

The Orangs are regarded by the natives as degenerated human beings. The Encheeco, or Chimpanzée, being less ferocious, and more intelligent, is supposed to have the spirit of a *Coast-man*, but the Engēena that of a *Bush-man*. Their flesh, when obtained, is eaten by the natives, as well as that of the Chimpanzée.

Dr. Wyman exhibited four Crania (two male and two female), of the Engēena; also the long bones of the extremities, a male and female pelvis, and some other bones. The following osteological characters were pointed out as indicating that the Engēena is specifically distinct from the Chimpanzée, the only Orang hitherto discovered in Africa.

The Engēena differs from the Chimpanzée, 1st. In its much

greater dimensions; 2d. In the size and form of the superciliary ridges; 3d. In the existence of a broad and thin interparietal and occipital crest in the males, and in a rudiment of the same in the females; 4th. In the great strength and arched form of the zygomatic arches; 5th. In the form of the anterior and posterior nasal orifices; 6th. The incisive alveoli are more narrow, and do not project beyond the line of the face; 7th. The scapula is more nearly equilateral, the spine divides it more equally; and, 8th. The *ossa ilii* are much broader, more concave, and the anterior spines project much further forwards.

The Engēena, in the strength of the zygomatic arches, in the existence of the crests, and in the great size and strength of the lower jaw, resembles the Orangs of the eastern world; but is readily distinguished from them by the great size of the superciliary ridges, by the straight outline of the face, by a fifth tubercle on the last molar of the lower jaw, by the existence of a depression for a round ligament on the head of the thigh-bone, by the more anthropoid character of its pelvis, and by having the ulna shorter than the humerus.

Mr. Desor exhibited numerous specimens of *Ostrea, Venus mercenaria, Purpura lapillus, Buccinum obsoletum,* &c., collected by himself from an excavation recently made in the drift at Brooklyn, New York.

They were found in a deposit of grooved and striated pebbles, forming apparently an anticlinal axis, on both sides of which are overlying strata of sand and clay, inclining in both a northerly and southerly direction, the shells being in the upper portion of the gravel bed. This shows the area of the fossiliferous drift formation to be more extensive than has been supposed.

Mr. Desor exhibited other delicate Shells, *Mya arenaria*, and *Tellina Groenlandica*, from the drift at Westport, on Lake Champlain, which were in such a state of integrity as to render it probable that they had lived where they were found.

Dr. Storer gave some notices of our Torpedo. He remarked,

"Although I had previously observed that the *Torpedo occidentalis* was 'undoubtedly a Southern species,' (see Proceedings

of Hist. Nat. Society, (vol. ii. p. 71,) I had never received any *positive information* of its being *taken south of Cape Cod*, until I visited Gay Head, in August, 1846. While on a visit at that place, I learned from Capt. Learned West, of Chilmark, and Mr. Samuel Flanders, keeper of the light-house at Gay Head, that in Chilmark, three miles from Gay Head, they had known at least fifteen or twenty of this species to be taken by hook and line, and also in seines, in the spring of the year, for several successive years."

Dr. Cabot remarked, that he had, last year, stated the occurrence of the Arctic Tern and Roseate Tern, at Beverly, Mass. He had this year procured specimens of both.

Dr. J. B. S. Jackson stated that the Blue-fish, *Temnodon saltator*, had been caught, in considerable abundance, at Nahant.

Dr. Gould stated, that a box, containing stalks of Maize, fifteen feet in length, had been received from President Malcom, of Georgetown, Kentucky.

ADDITIONS TO THE LIBRARY.

Gray's Genera of Birds. Part 39. For July. London, 1847. *By purchase.*

J. J. Audubon and J. Bachman. Viviparous Quadrupeds of North America. Vol. I. New York, 1847. *From Subscribers.*

Silliman's American Journal of Science and Arts. 2d Series, No. 10. For July, 1847. *Editors.*

Magazine of Horticulture, &c. No. 150. For June, 1847. *Editor.*

Magazine of Horticulture. Edited by C. M. Hovey. No. 152, for August, 1847. 8vo. pamph. *By exchange.*

Origin of the Grand Outline Figures of the Earth. By James D. Dana. 8vo. pamph. New Haven, 1847.

Geological Effects of the Earth's Cooling from a state of Igneous Fusion. By J. D. Dana. 8vo. pamph. New Haven, 1847. *The Author.*

September 15, 1847.

A. A. Gould, M. D., in the Chair.

Dr. Wyman stated that he had received a letter from Dr. Savage, giving Prof. Owen's opinion of the *Simia*, portions of whose skeleton were laid before the Society at a late meeting.

Prof. Owen intimates that they may be those of an adult Chimpanzée, from which remark Dr. Wyman inferred that Prof. Owen could not have seen an adult Chimpanzée; the British Museum, and the Hunterian Collection do not contain such. Dr. Wyman has had the opportunity of comparing the remains in question with eight specimens of the adult Chimpanzée in the Cabinets of Boston and Philadelphia.

Dr. Kneeland exhibited the skull of a Woodchuck, showing a curious elongation and distortion of the upper incisors.

They were deflected to the right, so that the extremity of the right incisor was about 7-8ths of an inch to the right of the median line of the jaw. The left incisor, also deflected to the right, had curved to meet the maxillary bone on the right side; which it had perforated to the extent of an inch, a little before the molar teeth, displacing the infra-orbital foramen upwards and outwards; its vertex about half an inch from the median line. The vertex of the right incisor was not chisel-shaped, but rounded; that of the left more pointed. Their anterior surface was considerably worn away by the lower incisors. As the lower jaw was wanting, he could not say whether it contained more than one incisor, though perhaps the extent of worn surface on the upper incisors would indicate the existence of two lower incisors. The right incisor, measuring the convexity of the curve, was three inches long; the left very nearly four inches; length of alveolar portion one and one-third inches.

Dr. Wyman exhibited the Cranium of an Otter, (*Lutra Americana*,) showing the manner of the articulation of the lower jaw with the cranium. The two were so fitted to each

other, that unless the two halves of the lower jaw are separated at the symphysis, they cannot be dislocated at the temporo-maxillary articulation.

Dr. Gould read a letter from Dr. B. L. C. Wailes, of Washington, Miss., containing notices of Fossils from the Natchez bluffs and Vicksburg, specimens of which he had sent to the Society.

On motion of Dr. Gould, it was

Voted, That the Secretary be directed to tender to the Association of Geologists and Naturalists the use of the Hall of the Society, and of its Cabinet and Library, during their approaching session in this city.

Mr. Frederick Billaud was elected a Member of the Society.

ADDITIONS TO THE CABINET.

Casts of Fossil Shells from New Holland, collected by the Exploring Expedition, and recently described by Mr. Dana, in Silliman's Journal. *From J. D. Dana, Esq., of New Haven.*

ADDITIONS TO THE LIBRARY.

American Journal of Agriculture and Science, for July, 1847. *From the Editors.*

Siedhof. Deutschland's Stubenvögel. 12mo. Braunschweig. 1845.

Proceedings of the Academy of Natural Sciences. Vol. I. No. 5. Vol. III. Nos. 1, 2, and Title-page and Index to Vol. II. *From the Academy.*

Deleuze. Histoire et Description du Museum Royal d' Histoire Naturelle. 2 vols. 8vo. Paris, 1823. *From A. Vattemare. By Exchange.*

October 6, 1847.

J. C. Warren, M. D., President, in the Chair.

Mr. Alger read remarks on a Mineral specimen, which he exhibited, and had lately received from Dr. Feuchtwanger as a new species.

Mr. Alger suspected, from its gem-like appearance, hardness, and weight, that it might be allied to the Sapphire class; and on further examination, pronounced it a splendid red Sapphire, or Corundum. It is from Cherokee County, Georgia. Mr. Alger's paper will be published in the Journal.

Dr. Gould gave descriptions of the following species of Shells from the collection of the Exploring Expedition.

BULLA PARALLELA. Testa parva, tenuis, cylindracea, lactea, anticè rotundata, posticè conica, imperforata, longitudinaliter minutissimè striata, ad verticem et ad basim striis undulatis decussata: apertura angusta, deorsum dilatata; columellâ callo haud appresso indutâ; labro ultra spiram adscendente, tunc deorsum intorta. Long. $\frac{9}{20}$, lat. $\frac{1}{5}$ poll. *Hab.*

Much smaller and thinner than B. *solidula*, though striated at the ends like it, and having the same conformation of the lip. Its sides also are parallel and not bulging.

TORNATELLA BULLATA. Testa parva, ovata, tenuis, albida, epidermide stramineo fugacissimo induta, spiraliter sulcata, sulcis linearibus ad 5 ordinatim dispositis in singulis anfractibus: spira prominula, turrita; anfr. 5 tabulatis, ultimo magno, ventricoso, 15-sulcato, supernis planulatis; sutura canaliculata: apertura semilunaris; columellâ uniplicatâ, planulatâ. Long. $\frac{1}{4}$, lat. $\frac{1}{8}$ poll. Dredged off Patagonia.

This little species, like T. *puncto-striata* and T. *venusta*, to which it is allied, has not the ivory surface of most species. It is well characterized by its form and sculpture.

HALIOTIS CRISPATA. Testa parva, tenuis, convexa, elongato-ovalis, undulis obliquis angulatis divaricantibus rugata, spiraliter striata, rubida: spira elevata, sub-mediana; foraminibus parvis,

circularibus, confertis, ad septenis perviis, extrorsum canaliculatis; intus undulosa, nitida, argentea. Long. $1\frac{2}{8}$, lat. $\frac{7}{8}$ poll. With New Holland shells.

About the size and form of H. *stomatiæformis*, Reeve, but distinguished from all others by its crowded angular ripples, arranged somewhat like the colors on H. *ziczac*. No shell approaches it in this respect except the very young of H. *australis*.

Scalaria gracilenta. Testa minuta, gracilis, elongato-turrita, alba, costis longitudinalibus tenuibus ad 16 clathrata, spiraliter inter costas striata, imperforata: spira anfr. 9 cylindraceis, contiguis; suturâ profundâ: apertura circularis, ab anfractu penultimo haud sejuncta; labro continuo, reflexo, posticè et ad columellæ basim dilatato. Long. $\frac{1}{4}$, lat. $\frac{1}{18}$ poll. *Hab.* Mangsi Island.

One of the most slender and delicate species of the genus, resembling the figure of S. *gracilis*, Sowb., but agreeing still more, in its characters, with his S. *turricula*.

Scalaria texturata. Testa parva, tenuis, elongato-turrita, rubescens, sub-perforata: spira anfr. 8 rotundatis, ferè solutis, costis 9 albidis elevatis reflexis supernè spinosis clathrata, et striolis inter costas confertissimè texturata: apertura circularis. Lat. $\frac{1}{6}$, alt. $\frac{1}{3}$ poll. *Hab.*

A very pretty, slender species, and well characterized by the numerous striæ between the ribs, forming a delicate net-work. It is allied to S. *turricula*, Sowb., which has only revolving lines, is less conical, and the whorls less rounded.

Littorina cincta. Testa parva, rudis, conico-globosa, fuliginosa, interdum albido-zonata, costulis elevatis rotundatis ordinatis cincta, interspatiis excavatis et minutissimè decussatim striatis: spira conica, acuta; anfr. 5 ventricosis, ultimo ampullaceo; suturâ bene impressâ: apertura ampla, sub-circularis; labro acuto, fusco-marginato; columellâ albâ, planulatâ, ad basim expansâ. Axis $\frac{5}{8}$, diam. $\frac{1}{2}$ poll. *Hab.* Puget Sound.

More globular and proportionally shorter than any described species. Generally resembles L. *striata*, but is still less elongated, less solid, and has the ribs larger and less numerous, and its color more dusky. It may also be compared with L. *breviculus*.

The President reported that he had, in conformity with a vote of the Society, communicated to Mrs. Binney, and the children of the late President, the thanks of the Society for the liberal donation received from them, in aid of the fund for the purchase and adaptation of the new building. A copy of the letter was submitted.

Dr. Shurtleff having given notice that the amount appropriated for the repairs of the building had been expended, he was authorized to expend $1000 more, if necessary.

Mr. Edward C. Cabot, and Mr. Waldo I. Burnett, of Boston, and Mr. B. C. Pierce, of Beverly, were elected members of the Society.

ADDITIONS TO THE LIBRARY.

Brieslak. Institutions Géologiques. 3 vols. 8vo. Milan, 1818. *From A. Vattemare. By Exchange.*

Desnoyers. Récherches Géologiques et Historiques sur les Cavernes, et particulièrement sur les Caverns à Ossemens. 8vo. Paris, 1845. *From the Same.*

Silliman's Journal. No. 11. For September, 1847. *From the Editors.*

Annals of the Lyceum of Natural History of New York. Vol. IV. Nos. 10 and 11. July, 1847. *From the Lyceum.*

Annals and Magazine of Natural History. Nos. 131 and 132. August and September, 1847. *From the Courtis Fund.*

Gray's Genera of Birds. Part 40. September, 1847. *From the Courtis Fund.*

Magazine of Horticulture. No. 153. For September, 1847. *By Exchange.*

October 20, 1847.

J. C. Warren, M. D., President, in the Chair.

Dr. Gould read portions of a letter from Dr. Wyman, containing notices of the Academy of Natural Sciences, at

Philadelphia, and showing that Institution to be in a condition of activity and prosperity well calculated to excite emulation.

Mr. Teschemacher exhibited the stem of an arborescent Yucca, the head of which had been destroyed —

It had thrown out numerous adventitious buds from the lower part. These buds were arranged in a regular spiral direction, and the whole appearance of the stem resembled very closely the figure of *Halonia regularis*, (Lindl. & Hutton, vol. iii. tab. 228.) This, being the abnormal state of this plant, might, he thought, account for the scarcity of specimens of Halonia.

He also exhibited transverse sections of these buds, showing their origin in the central cellular substance of the stem, the external portion of the stem (the false bark) being a mass of closely compact vascular matter one-fourth to one-half an inch thick, through which the buds pass, in a conical form; he compared these with a beautiful specimen of some symmetrically arranged conical forms, impressed with vascular appearances, found in the body of the Anthracite coal of Pennsylvania.

He also presented some conical forms, composed of distinct and separate fibres, in the fine interstices of which were numerous microscopic but perfect crystals of Carbonate of Iron. These specimens he had obtained thirty years ago, from coal and iron mines in England; but until the present time, he had not been able to get any light on their singular but very distinct structure. Two of them are still embedded in the rocky mass. He now thinks these conical forms are of vegetable origin.

He remarked, that Analogy, not Identity, was the object to be pursued in our present researches into fossil vegetation; he thought the analogy close, between the false vascular bark of the Yucca and the so-called bark of many Sigillariæ; that the slight impressions on the soft internal part of the Yucca, left by the apices of the conical buds, were analogous to those seen on Sigillariæ on removing the carbonized bark.

He thought it not improbable, from the great resemblance of the scars of buds on the external part of the stem of Yucca, to the markings on Sigillariæ and Lepidodendra, that many of these markings are scars of buds, instead of those of leaves. He ex-

hibited a specimen of a carbonized stem in the Anthracite coal, with a distinct branch forming an angle of about 50°.

He finally offered his opinion that a careful investigation of tropical plants, in their native forests, would show analogies materially changing the present received ideas of fossil vegetation.

Dr. Cabot exhibited fossils from the neighborhood of Moosehead Lake; Terebratulæ, Spirifers, and Crinoidea, Prof. Rogers pronounced them analogous to those of the Hamilton and Chemung groups of the New York series.

ADDITIONS TO THE LIBRARY.

James Hall. Crinoidea of the inferior strata of the New York System. Part I. 4to. pamph. Albany, 1847. *From the Author.*

S. S. Haldeman. Materials towards a History of the Coleoptera Longicornia of the United States. 4to. pamph. Philadelphia, 1847. *From the Author.*

Proceedings of the Academy of Natural Sciences of Philadelphia. Vol. III. No. 9. May and June, 1847. *From the Academy.*

R. W. Gibbes. Memoirs of the Fossil genus Basilosaurus; with notice of specimens from the Eocene Green Sand of South Carolina. 4to. pamph. Philadelphia, 1847. *From the Author.*

Magazine of Horticulture. No. 154. October, 1847. *From C. M. Hovey, Editor.*

November 3, 1847.

J. C. Warren, M. D. President, in the Chair.

Dr. C. T. Jackson exhibited several Vertebræ, dug up in a clay stratum, near the bed of a small stream in Machias, Me., and presented by Mr. Temple, of that place. They were found at the depth of about eight feet. Dr. J. considered them to be those of a Cetacean. They were committed to Count Pourtalés.

Mr. Desor inquired whether there were any shells found with the vertebræ at Machias. Mr. Temple replied in the negative. Mr. Desor remarked, that, from the position of the bones, they were of as high antiquity as those of the Mastodon. Mr. Desor also remarked on Mr. Lyell's theory respecting the evidences furnished by shells in the recent formations, as to the condition of climate at the time of their deposit, and stated some facts at variance with that theory.

Dr. C. T. Jackson stated that there were three strongly-marked gradations in the Diluvium of Maine, marked by their characteristic fossils. *Pecten Islandicus* was found all along the coast, from Kittery Point to Lubec, in a position thirty feet lower than Nucula, so abundant at Westbrook, South Berwick, and Portland. A stratum still higher, by about the same interval, was found at Bangor, with still different genera of shells.

Dr. Gould remarked, that *Nucula Jacksonii* and *Nucula Portlandica* were different from any living species yet found, and these are the only ones, in the clay beds, which have not yet been found in our present waters.

Dr. Jackson also exhibited specimens of Copper and Silver Ore from Cliff mines, Lake Superior, showing the metals in a pure state in immediate contact, yet unalloyed; a result which, he stated, had not as yet been effected by any artificial means, and difficult to explain by natural agencies.

He suggested Electricity as the cause, and stated that Prof. Locke had been engaged in making magnetic observations in the mines, some of the results of which he stated.

Dr. Storer exhibited the Jaw of *Carcharias griseus*, Ayres; and Teeth of C. *obscurus*, the only Shark yet found in our waters with serrated teeth.

Dr. Warren exhibited Casts of the Bones of *Dinornis gigas*, of New Holland, and compared them with the corresponding bones of the Ostrich, which they greatly exceeded in length and bulk.

Mr. J. W. Whitwell was elected a member of the Society.

November 17, 1847.

J. C. Warren, M. D., President, in the Chair.

Dr. Cabot read a paper entitled "A Comparison between *Sterna Cantiaca*, Gm. of Europe, and *Sterna acuflavida*, Nobis, hitherto considered identical with S. *Cantiaca*;" specimens were exhibited. The following measurements from adult, full-plumaged specimens were given:

American.	*Millimetres.*	*European.*
Bill along ridge	49	57
" " gape	64	75
From the nostril to the point of the bill	36	41
Length of nostril	6	9
Length of lower mandible along the centre, (measuring to the feathers,)	41	47
Length of do. do. along the side, do. do.	51	62
Width of bill at commencement of feathers	8	7½
Depth of do. do. do.	11¼	12½
Length of wing from flexure	290	317
Length of tail to tips of lateral feathers	136	149
Length of tarsus	25	28
Middle toe without the claw	18	21
Middle claw	7½	9
Inner toe with claw	17	20
Outer do. do.	21	26
Thumb	6½	8½

Besides these differences in measurement of parts not subject to change from improper stuffing, &c., we find that the coloring differs in some very important particulars. In the American bird the yellow is strictly confined to the tip of the bill, and the line of union of the yellow and black is perpendicular and unbroken, whereas in the European bird the yellow runs up to the inner edge of the symphysis on the under side of the lower mandible, and almost as far on the upper edge; and on the upper mandible also, it extends both on the edges and on the ridge much higher than in the American bird. The primaries are

much darker in the American bird than in the European, and the white line which runs along the inner edges and forms their tips in the European bird, disappears in the American before it gets within half an inch of the tip; besides being much narrower. There are also some important differences in form. The projecting point at the symphysis on the under side of the lower mandible is more marked in the American than in the European bird. The claws of the European bird are larger and much more arched than those of the American. The bill of the European bird is much narrower in proportion than the American, and is more bent.

The specimen of S. *acuflavida* in his collection was procured at Tancah,* on the coast of Yucatan, on the 25th of April, 1842, and is mentioned in the appendix of Mr. Stephens's Incidents of Travel in Yucatan, under the name of S. *Boysii*.

Dr. Cabot also described the following species of Wren, under the name of TROGLODYTES ALBINUCHA.

	Millimetres.
Total length	140
Length of wing from flexure	58
" tail	51
" head and bill	38
" bill along the ridge	17
" bill along the gape	22
Width of bill at feathers	$3\frac{1}{2}$
Depth " "	$3\frac{3}{4}$
Length of tarsus	20
" middle toe with the claw . . .	22
" inner toe " " . . .	15
" outer toe " " . . .	16
" thumb " " . . .	17

The bill is bent from the base to the tip. The claws are much curved and very sharp. The head, back, and upper sides of the wings and tail, brown; a line of white, with black or dark brown intermixed, passes over the eye, and meets with a similar line,

* This is the name of a rancho situated on the site and amid the ruins of an aboriginal city, and owned by the sons of a piratical captain, by the name of Molas. It is nearly opposite the Southern extremity of the Island of Corumel, lat. 20° 15′ N.

which passes under it, and they form a patch on the sides of the neck extending round to the nape. Chin, throat, and breast white; flanks and abdomen light yellowish brown, darkest near vent. On the rump are some white and dark brown or black spots intermixed with the brown of the rest of the back. Under tail-coverts, the outermost, and outer webs of next three tail-feathers, and outer edges of first and second primaries, barred with white or yellowish white, and dark brown or black. There are many black bars running across upper side of wings and upper tail-coverts. The four middle tail-feathers are brown, with many black spots. The upper mandible is dark horn color; the under mandible is the same at its tip, but is almost white on the under side and at base. The fourth and fifth primaries are longest and the first is shortest.

The specimen from which the description was taken was the only one observed, and was procured near Yalahao, in Yucatan, April 6th, 1842.

Dr. Cabot also announced the donation from Maj. Townsend, of two specimens of Birds from Arkansas, namely, *Icterus xanthocephalus* and *Recurvirostra Americana.*

Dr. Gould exhibited specimens of *Planorbis multivolvis*, Case, brought by Mr. C. J. Foster from the Lake Superior region, recently described by Mr. Case in Silliman's Journal. It is a very decidedly-marked species. Dr. Gould thought that some other specimens accompanying them, allied to T. *bicarinatus*, were also new.

Mr. Peabody presented a bottle of small Fishes, from Lake Superior, collected at the suggestion of Prof. Agassiz. He also exhibited specimens of Fluor Spar, of various forms and colors, from the mine of C. A. Stickney, Esq. Shawneetown, Ill. He also pointed out crystals of Cadmium Blende, of which he gave the following results of analysis: Silica 4.800; iron 61.000; cadmium 3.100; sulphur 31.000.

Dr. C. T. Jackson exhibited specimens of Copper from the Bruce mine, north side of Lake Superior; Copper Pyrites and Grey Sulphuret mixed with Quartz rock, of a richness estimated at 15 per cent. He also exhibited a lump of

the native Copper from Isle Royale, from a vein 350 feet below the surface, where the metal, having been cooled under vast pressure, might be expected to be of a proportionate density; on comparison with other specimens, the specific gravity was:

Specimen from the cliff at Keweenaw Point .	893.18
Hammered copper	889.
Native copper, under ordinary circumstances .	858.40

Mr. J. E. Teschemacher exhibited a specimen of Anthracite Coal, on which was a mass of carbonized wood perfectly structural; in the centre of this mass ran a number of jointed vessels (?), spreading out in various directions; other masses on this specimen contained vessels also.

Mr. T. also stated, that after careful examination of numerous specimens, he had been forced to the conclusion that many of the appearances in the anthracite coal must be due to the growth of fungi during the coal epoch; that many specimens exhibited what might easily be interpreted as Mycelia, and that the investigation of the decarbonized matter seemed to him strongly to support this view, which, in presenting a lower order of vegetation at that period, would accord with the plan exhibited in other existences. One form agrees remarkably with a figure of Husseia, a new fungus, given by Sir W. J. Hooker in a late Number of the Journal of Botany. He stated that he had, within a few days, discovered several more specimens of the vegetable forms found in the Shale, including some of the rarest; and that in others he had found the interior of large stems as carbonized matter, which, if it proves still to retain its original structure, as it appears to do, will no doubt throw light on the analogy of the coal vegetation to that of the present period.

Mr. Desor exhibited a sketch, by Mr. Edward C. Cabot, of the remarkable parallel trains of Boulders in Berkshire County, Massachusetts, lately described by Prof. Rogers in the Society's Journal.

Mr. D. called attention particularly to the fact that the trains consisted of angular boulders, resting, in parts of their route, upon rounded drift pebbles. Similar facts were common in Switzerland; but so far as hitherto observed, rare in this country. He

also expressed the opinion that the Glacier theory would account for this phenomenon as well as any that has yet been suggested; and pointed out, on a map of the glaciers of the Alps, similar trains of boulders parallel to the course of the glaciers.

The President exhibited a Cast, lately procured from England, of the lower jaw of *Mastodon elephantoides*, the original of which was brought from India by Dr. Falconer.

Dr. Shurtleff announced the donation from Dr. W. R. Lawrence, of a series of fœtal Skeletons. Thanks were voted to Dr. Lawrence for this donation. Also the acquisition of the Skeleton of a Bison, and a Moose, for the latter of which, the Society was indebted to their President.

Dr. Abbot gave an account of the Singing Mouse, which he had recently seen in Philadelphia.

This mouse was captured a few months since in an apartment where Canary birds were kept. Its note resembles very much the sounds produced by a whistle made of quill, when blown with its extremity in a vessel of water. It seems to be as near an imitation of that of a Canary bird, as its organs are capable of. It consists of a succession of very rapid trills, interrupted at intervals by a few mellow warbling notes, with rests between; and sometimes a few notes like the mild chirp of the American robin while unmolested in the vicinity of its young. Sometimes it is a rapid repetition of two notes with a musical interval of a second between; very much like the mocking bird's imitation of the creaking of a wheelbarrow. The sound is kept up for hours together without intermission, and although perfectly voluntary, it does not interrupt the animal's occupations, not even feeding. It is produced equally during inspiration and expiration; it is very difficult to detect any difference in its character corresponding to the different direction of the air. It is thought by the owner of the animal that the sound comes from the nose. During the time Dr. Abbot heard it, it was constantly gnawing the wires of its cage, producing a loud noise not in the least interfering with its music, which was kept up incessantly during the half hour he was examining it. Its movements are so rapid, constantly climbing on the wires of its cage, and gnawing them,

that it was extremely difficult to fix the eye long enough on its muzzle to ascertain precisely how the sounds were produced. It could be seen, however, that there was a constant tremulous motion of the upper lips and snout. On bringing the ear within three inches of the animal while singing, it was very evident that the interruptions between the notes and their various modulations were produced as the sound issued from the vocal organs, rather than in the throat. It usually begins its song at 9 or 10, P. M. and continues it all night; sometimes, when it is silent, striking a few notes on the piano will set it to singing again. During the day it sleeps most of the time; recently it has sung an hour or two in the afternoon. It is fed on Canary seed and Indian meal. Its appearance is in no way different from that of a common mouse.

Capt. Charles H. Matthews, of Sault St. Marie, and Capt. Nathaniel E. Atwood, of Provincetown, Mass., were elected Corresponding members.

ADDITIONS TO THE LIBRARY.

Proceedings of the Academy of Natural Sciences of Philadelphia. Vol. III. No. 10. July and August, 1847. *From the Academy.*

Annals and Magazine of Natural History. No. 133. October, 1847. 8vo. London. *From the Courtis Fund.*

Proceedings of the American Academy of Arts and Sciences. pp. 49 to 160. 8vo. pamph. Boston, 1847. *From the Academy.*

Gray's Genera of Birds. Part 41. London, 1847. *From the Courtis Fund.*

Map of that part of the Mineral Lands adjacent to Lake Superior. Washington, 1847. *From Hon. R. C. Winthrop.*

December 1, 1847.

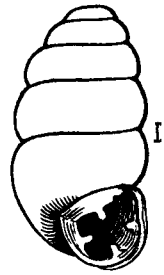
J. C. Warren, M. D., President, in the Chair.

Dr. Gould stated, that among the Shells collected by Dr. C. T. Jackson on the shores of Lake Superior, was a new species of *Physa,* which he exhibited and described;

together with two other new species of North American Shells.

PHYSA VINOSA. Testâ tenui, ovato-globosâ, badiâ, spiraliter minutissimè striatâ, epidermide tenui indutâ: spirâ obtusâ, anfr. 4, ultimo per-magno: aperturâ ovato-lunatâ, $\frac{3}{4}$ longitudinis æquante, hepaticâ; columellâ rectâ, tenui. Long. $\frac{3}{4}$, lat. $\frac{1}{2}$ poll. Brought by Dr. C. T. Jackson from the Lake Superior region.

A remarkably inflated species, most like P. *ancillaria*, but is not shouldered, nor widest behind the middle, nor tapering anteriorly. It is well distinguished by its thin structure, striated surface, wine-red color externally, and liver-brown internally.



PUPA DECORA. Testa minutâ, cylindraceâ, tenui, nitidâ, lucidâ, vinosâ, tennuissimé striatâ, perforatâ; spirâ anfr. 5-6 ventricosis, apice rotundatâ; suturâ profundâ: aperturâ circulari, posticè truncatâ, dentibus 4 armatâ, quorum uno posticé, uno ad columellam, duobus ad labrum positis; peristomate vix reflexo. Long. $\frac{1}{10}$, lat. $\frac{1}{20}$ poll. Brought by Mr. T. R. Dutton from the region of Lake Superior.

It is rather larger, more cylindrical, and darker colored than P. *corticaria*. Its aperture is smaller and differently armed. In form, color and armature it is more like P. *Gouldii*, Binney, which is not more than half its size.

NATICA FOSSATA. Testâ depressâ, orbiculato-conicâ, solidâ, tenuissimè striatâ, cinereo-albidâ, propè suturam purpurascente, subtus pallescente: spirâ anfr. 5 convexis, decliventibus, ad peripheriam subangulatis: aperturâ semilunari, fauce hepatico, callo columellari regionem umbilicalem semi-obtegente, castaneo; umbilico magno, profundo, canali profundo, precipiti, epidermide stramineo induto, circumacto. Lat. $1\frac{3}{4}$, alt. $1\frac{1}{4}$ poll. *Hab.* Florida Coast.

This would not at first sight be distinguished from N. *duplicata*, Say, which it precisely resembles in form and coloring. But the umbilical region is entirely different; and the deep, wide channel leading to the umbilicus and covered with epidermis is in striking contrast with the pale, polished region adjacent. In this aspect it is like N. *Lamarckiana*.

December 15, 1847.

J. C. Warren, M. D. President, in the Chair.

Dr. C. T. Jackson communicated a letter, addressed to him by a committee of the French Institute, inviting the coöperation of American Naturalists in erecting a Monument to the Memory of Geoffroy St. Hilaire. He advocated the proposal; and, after remarks by Dr. J. B. S. Jackson and others, it was *Voted*, That the letter be submitted to a committee of three, to consider and report thereon. The President, and Drs. C. T. and J. B. S. Jackson were chosen to constitute the committee.

Dr. C. T. Jackson presented, on behalf of Mr. Joy, a specimen of *Coluber occipito-maculatus*.

Dr. Gould presented, on behalf of Mr. James Mitchell, of Nantucket, a portion of the Cranium of a Ray.

Mr. Ayres exhibited the Jaws of *Carcharias ceruleus*, Dekay, showing that the teeth are serrated; as Dr. Storer had remarked at a previous meeting, that C. *obscurus*, Le Sueur, was the only Shark known on the Massachusetts coast with serrated teeth. He exhibited also the Jaws of C. *griseus*.

It may be doubted, whether this species can be retained in the genus Carcharias. The teeth are very similar to those of Scyllium; but from that genus it is separated by the position of the dorsal fins and by the absence of spiracles. The teeth of Carcharias are hollow at the base; in this specimen Mr. A. had cut two of the teeth across, near the base, showing that they were solid.

Mr. Desor remarked, that the species might probably be included in the genus Odontaspis of Agassiz.

Mr. F. J. Bumstead was elected a member of the Society.