

January 3, 1844.

Regular Meeting—Dr. C. T. Jackson, Vice President, in the Chair.

Dr. Cabot read descriptions of three new species of Woodpecker, from Yucatan, viz. : *Picus dubius*, *P. parvus* and *P. Yucatanensis*, and exhibited the specimens. The descriptions are as follows, viz.

PICUS DUBIUS. Cabot.

Male, $9\frac{3}{8}$ inches long. Bill $1\frac{1}{2}$ inch along ridge ; $1\frac{3}{8}$ inch along gape. Tarsus $\frac{5}{8}$ of an inch long—Tail $3\frac{1}{2}$ inches long, of 10 feathers. First primary shortest, third and fourth longest. Whole top of head and neck bright vermilion. A white band, $\frac{1}{4}$ inch wide across forehead. Spot of bright vermilion at base of bill, above nostrils. Back, wing coverts and secondaries black, crossed with about thirty transverse white bands. Upper tail coverts white. Lower tail coverts black and white, in wavy lines. Tail feathers black, except two outer ones, which are tipped and spotted on outer edge with dull white. Cheeks, line over eyes, chin, breast and flanks light cinereous ; almost white on chin, darker on breast and sides of neck. Abdomen light vermilion. Bill horn-black. Legs slate color. Iris reddish.

PICUS PARVUS. Cabot.

Male—Length $6\frac{1}{8}$ inch. Bill $\frac{5}{8}$ of an inch. Tarsus $\frac{11}{16}$ of an inch. Tail $2\frac{3}{8}$ inches, consisting of 10 feathers. Crown red, with a light spot near quill of each red feather. Back, wing coverts, secondaries and primaries, black barred with white. Cheeks black, with a white stripe from base of bill to ear. White line over eye. Chin, throat and breast, white ; breast marked with black spots. Vent and under tail coverts white, banded with black. Upper tail coverts black. Two outer tail feathers barred with black and white. White marks on outer edge of third feather. Rest of tail black. Legs bluish black. Bill horn-colored. Iris hazel. 1st primary shortest, 2d longest.

PICUS YUCATANENSIS. Cabot.

Male—Length $8\frac{1}{2}$ inches. Bill 1 inch along gape, $\frac{7}{8}$ along ridge. Tail 3 inches, of 10 feathers. Tarsus $\frac{5}{8}$ inch. 1st primary short-

est, 3d and 4th longest. Top of head cinereous black. Hind head, nape, along superciliary ridges to base of bill scarlet. A patch of the same from base of lower mandible along ramus to angle of lower jaw. Space between eye and bill, and extending under eye to side of neck, greyish with darker bars, growing more distinct towards neck. Chin black, spotted with white. Neck, breast, abdomen, upper and under tail coverts and flanks olive, transversely barred with yellowish white. Back, upper wing coverts, outer edge of secondaries and outer edge of primaries olive. Two outer tail feathers yellowish, others black with some yellowish near upper part. Iris hazel. Legs bluish. Bill horn-color.

Dr. C. T. Jackson read a description and analysis of Yttrocerite, from Worcester County, Mass.

It was found by Prof. Hitchcock among some geological specimens from Worcester Country. The precise locality is unknown. This mineral was suspected to be Yttrocerite from its resemblance to a specimen of that mineral from Sweden, sent to Prof. H. by Frederic Tamnau, of Berlin. A brief notice of it was read by Prof. H. at the last meeting of the Association of Geologists and Naturalists at Albany. Since that time a portion of the specimen had been sent to him for description and analysis.

It occurs in narrow veins in quartz and albite, containing silvery white mica and a few red garnets, and pink fluor spar.

Thickness of the veins from 3 to 4 millimetres. They run irregularly through the rock, and invest the quartz in very thin layers. The mineral also penetrates the felspar and fluor spar communicating a pink color.

It is massive, with some traces of crystalline structure.

Color—Violet blue, inclining to grey or lilac. Thin laminae on the quartz translucent and of a delicate pink color.

Hardness— $4\frac{1}{2}$ of the scale of Mohs.

Specific Gravity—3.076.

Lustre—pearly; streak and powder greyish white. Before the blowpipe, alone on charcoal, turns yellow; fuses, at a full red heat, into a greenish yellow porous glass or slag, which becomes lighter colored when cold.

With carb. soda O. fl. fuses into a yellow green opaque enamel. R. fl. becomes nearly white when cold, but remains opaque.

With borax dissolves readily into a transparent glass, which is

orange red while hot and colorless when cold. With salt of phosphorus it fuses into an opaline glass, which is orange red while hot but colorless when cold.

In this glass white particles of silica remain undissolved, and communicate to it a milky opalescence.

When a fragment of the mineral is fused with salt of phosphorus, there remains in the bead a skeleton of silica.

With gypsum the mineral fuses readily and forms a greenish yellow enamel, which becomes lighter colored in R. fl.

When the pulverized mineral is made into a paste with sulphuric acid in a platina crucible, and a waxed plate of glass, with letters marked through the wax is placed upon it; on application of heat to the crucible the letters become rapidly and deeply etched in the glass, demonstrating the presence of fluorine.

The above characters shew that this mineral differs somewhat from the Yttrocrite of Sweden, but these differences arise from the presence of some additional foreign matters as will be seen by the following analysis :

One gramme of the mineral was crushed to powder in a steel mortar, and then rubbed to impalpable powder in one of agate.

It was then dissolved in chlorhydric acid and formed a lemon yellow solution, leaving a portion of silicate of cerium undissolved.

The solution was then analyzed according to the directions of Berzelius, by means of a crust of crystals of sulphate of potash, which threw down a white powder of sulphates of potash cerium and yttria. The yttria salt was then dissolved out by a concentrated solution of sulphate of potash, and the cerium salt collected was dissolved in boiling water, and the oxide of cerium precipitated by means of a solution of pure potash. The lime was separated as a sulphate and the alumina was precipitated by carbonate of ammonia. The fluorine was determined by the difference in weight of the mineral, and the results obtained.

Oxide of lanthanum is *inferred* to be present from the color of the cerium obtained, no accurate process for its proportional separation yet being made known.

The results of the analysis on 1 gramme were as follows :

Lime,	=	.347
Yttria,	=	.155
Oxides of Cerium and Lanthanium,	=	.133

Alumina and Oxide of Iron,	=	.065
Silex and Silicate of Cerium,	=	.106
Fluorine by difference,	=	.194
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It is mixed with fluor spar in the thick part of the vein.

This rare mineral is now proved to occur in this country, and it may interest mineralogists to know that it probably will be found in Boxborough or Bolton in this state, since I have found other cerium minerals at those places, associated with the scapolite and petalite at the lime quarries.

The albite in which the yttrocerite occurs is like that found at the Boxborough lime quarries.

Dr. J. also read a description and analysis of the pink Scapolite, of Bolton, which is composed of the following ingredients :

Silicic acid,	45.94
Alumina,	28.84
Lime,	14.81
Soda,	5.43
Lithia,	1.58
Potash,	0.64
Magnesia,	0.21
Oxide of Cerium,	2.00
Water,	0.50
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	99.95

This mineral occurs in abundance at Whitcomb's lime quarry, near the junction of the white, granular limestone with gneiss rock at the top of the quarry.

The cavities in the pink scapolite are frequently filled with a yellow powder, which on analysis was found to be a hydrous cerium ochre.

One grain of this substance contains of

Oxides of Cerium and Lanthanum,	0.2
Yttria,	0.1
Scapolite,	0.7

It dissolves readily in muriatic acid and forms a lemon yellow solution ; with borax forms easily a transparent glass—orange red while hot, and pale delicate green when cold.

January 17, 1844.

Regular Meeting—The President in the Chair.

Dr. Storer laid on the table a specimen of *Limulus Polyphemus*, of large size, picked up on the beach at Nahant. The dimensions are as follows, viz.:

Greatest width,	10 $\frac{3}{4}$ inches.
Length without tail,	14 "
Across abdomen,	7 "
Length of carapace,	7 $\frac{1}{2}$ "
Distance between the eyes,	6 $\frac{3}{4}$ "
Weight (tail wanting.)	

Dr. Storer, on behalf of Mr. S. S. Haldeman, presented a paper containing descriptions, with beautiful figures, of several species of *Aphis*, inhabiting Pennsylvania, as follows:

The following species are left in the genus as originally established, and they are not all characterized from mature individuals. A considerable number have been described by Rafinesque, who also instituted several sub-genera; but as far as I have been able to consult his papers, he has not noticed those here given.

1. *A. QUERCUS-MONTICULA*: brick red, varied with light yellowish; antennæ and legs pale, annulate with black; abdomen flat above, sometimes pale green; appendages short, two-jointed; eyes round and projecting. Varies considerably.

2. *A. RUBECULA*: deep brick red, outer extremities of the thighs and legs black; appendages long and taper.

3. *A. CASTANEA-VESCA*: body flat above, appendages obsolete; *young* white, legs and antennæ black, two marginal and two dorsal rows of large black spots; *adult* nearly black, with the spots obsolete.

4. *A. BICOLOR*: light yellowish green; head, antennæ, appendages, mesothorax, legs (except the anterior femora and part of the leg) blackish.

5. *A. MARGINIPENNIS*: light brown, covered with white down; thorax dark, abdomen large and inflated, appendages short; rostrum and antennæ corneous, with the extremity black; eyes prom-

inent, reddish brown; wings large, external margin brown. Female (fig. 6) black, somewhat hirsute; legs brown, ciliated; head, antennæ and thighs, pale corneous. A large species. Hab. *Pinus mitis*.

6. *A. PILOSA*: grey, with a short dense pile, which is wanting upon the numerous circular black spots of the surface; base of the antennæ and femora corneous; feet and tibiæ black, except a small testaceous portion next the knee joint of the 2d and 3d pairs. Perhaps *Aphis salicis*, Lin. as it occurs upon an exotic species of *salix*.

7. *A. DISCOLOR*: black, abdomen brownish yellow; anterior legs brown; appendages short.

Dr. Binney reported that the Crustacean, committed to him at a recent meeting, proved to be the female of *Lithodes arctica*, a species common to the northern parts of Europe and the corresponding coast of N. America.

It is the second specimen recorded as taken upon our shores. It was taken from the stomach of a codfish near Nahant, and from the fact of another specimen having been taken in the same neighborhood, from the stomach of the same species, and both hardly altered by the action of that organ, it may be reasonably inferred that its habitat extends from Greenland to our own vicinity. Both specimens were procured in the winter. The cast off shells have never been noticed thrown up on our shores, while those of other species are common.

Mr. Perkins presented a specimen of Vegetable Tallow, brought by him from Africa.

Mr. Teschemacher remarked that he supposed it to be the Shea butter, a substance which he had seen mentioned as collected by Dr. Stanger on the late expedition to the Niger, and which is supposed to be the inspissated juice of *Bassia Parkii*, specimens of the dried fruit of which were lately presented to the Linnean Society of London, by Mr. Smith, of Kew. Mr. T. has seen in a late publication that this plant has flowered in some of the conservatories in England.

This substance was referred for chemical examination to Dr. C. T. Jackson.

Mr. P. also presented a specimen of African Cotton.

It is the produce of a large tree, and is found on the ground when the seed vessels drop. Mr. Teschemacher observed that the seed indicated the tree to be of the Malvaceous family; the staple, although fine and silky, was very short and weak.

Mr. Teschemacher reported on some papers in the *Acta Curiosorum*, presented by Dr. A. Gray, on the system of Crystallography, by M. L. Frankenheim.

On the Jura Limestone, of Kurkowitz, by E. F. Glocken.

Mr. T. observed that it contained a minute and excellent detail of the locality, and that it was remarkable for giving an account, with a plate, of dendritic deposits of manganese, in sand stone, exactly resembling those presented lately to this Society by G. B. Emerson, Esq., which were obtained in digging a well at Newton, in this vicinity, and on which Mr. T. made a report. The star-like appearances, and the lines exhibited in the plate, might be supposed to have been copied from those found at Newton. The writer of the paper hints at the possibility of their being produced by electricity.

The only fossil shell he found was a species of *aptychus*.

Dr. Cabot stated, that he had lately found in the market a specimen of what he considered to be the common American Deer, *Cervus Virginianus*, but possessing *palmated horns* of large size, of which he exhibited a sketch.

He had not found this anomaly anywhere described, and suggested that their occurrence in this instance might serve to indicate a variety.

ADDITIONS TO THE CABINET.

Fossils from New Jersey, from *Prof. H. D. Rogers*.

Several phials, containing African ants, from *Dr. T. S. Savage, of Cape Palmas*.

ADDITIONS TO THE LIBRARY.

Herbarium Diluvianum, collectum a Johanne Jacobo Scheuchzero, M. D. Lugduni, 1723. *From Dr. Binney*.

Zoölogical Contributions, No. 2. 8vo pamph. *From S. S. Haldeman*.

Schembri Antonio—Catalogo Ornitologico del Gruppo di Malta. 8vo. pamph. *From the Author*.

February 7, 1844.

Regular Meeting—Dr. C. T. Jackson, Vice President, in the Chair.

Mr. Bouvé reported on some fossils from the green sand of New Jersey, presented by Prof. Rogers.

There were vertebræ of the mosasaurus and crocodile, and some shells of kinds already represented in our cabinet. He also exhibited a specimen of limestone, from Kittaninny valley, N. J., which had been altered by igneous action, and in connection gave an account of the geological character of that district.

Dr. Gould gave a favorable notice of a pamphlet of S. S. Haldeman, on the nomenclature of Zoölogy.

Dr. Abbot continued his report on the Surinam birds presented by Dr. F. W. Cragin, describing their habits and structure. He exhibited the following species, viz. :

Tanagra melanopsis, Black-faced Tanager—male; *Sylvia æstiva*, Summer Yellow-bird; *S. Cayana*, Cayenne Warbler; also a variety of the same; *Turdus cinnamomeus*, Black-breasted Thrush; *Cassicus cristatus*, Greater-Crested Cassican; *C. icteronotus*, Yellow-backed do.; *C. hæmorrhous*, Crimson-rumped do.; *Oriolus xanthornus*, Lesser Bonana Oriole; *Certhia cærulea*, Blue Creeper; *C. cyanea*, Black and Blue do.; *C. spiza*, Black-Headed do.; *Hirundo purpurea*, Purple Martin—male and female; *H. leucoptera*, White-winged Swallow; *Caprimulgus Virginianus*, Night Hawk—male and female.

Dr. Abbot also reported on a Catalogue of the Birds of Malta and the adjacent islands—"Catalogo Ornitologico del Gruppo di Malta, Antonio Schembri." It is not a mere catalogue, but contains notices of the species registered, and mentions among other rare visitors the Snow Bunting, *Plectrophanes nivalis*, and the Puffin, *Mormon arcticus*—both northern species.

Dr. C. T. Jackson reported on a Vegetable fat, brought from the western coast of Africa by Mr. Perkins.

This singular substance is said to be the spontaneous exudation of some tree unknown to the gentleman who presented the specimen to the Society.

It occurs in large masses. Sub-crystalline or massive ; color white, inclining to yellow, resembles in appearance and feel some varieties of hard soap, but is very light, floating on the surface of alcohol but sinking in ether.

It melts at the temperature of 90° F. remains fluid when cooled down to 67°, but on crystalizing, the temperature rises suddenly to 80°.

It is not a volatile oil, but may be distilled over with alteration of its composition, becoming very strongly empyreumatic and disagreeable.

Soluble in hot alcohol and precipitable by water.

Soluble in boiling ether, but lets fall a heavy fixed oil on cooling, and then crystalline stearin in the form of a white flocculent mass.

Saponifies readily with pure potash and forms a soft soap. Salt separates a harder soap, but not so hard as the animal fats produce.

It is then a concrete oil, containing a large proportion of stearine with elaine.

Its ultimate analysis will prove it to consist of carbon, hydrogen and oxygen.

No ammonia is disengaged from it by potash, hence it does not contain nitrogen.

Its use in the arts is evident from its composition. It will prove valuable both for soap making and for fuel for lamps, for it will yield both oil and hard fat or stearine.

The Secretary gave some notices of the Herbarium Diluvianum of Scheuchzer, an author of the date of the early part of the last century.

This author thought that he had discovered the fossil remains of man, which he called "Homo Diluvii testis." These remains were afterwards shown by Cuvier to be those of a gigantic extinct salamander. The work is instructive, as showing the difficulties and delusions in the path of early geologists.

February 21, 1844.

Regular Meeting—The President in the Chair.

Mr. Stodder gave a notice of the Report on the Mineralogy of New York.

He dwelt particularly on that part of the work which gives an account of the saline and mineral springs of that state. The origin of these was inquired into, and the various theories on the subject stated and examined.

Mr. James Hall, of New York, corrected some of the statements of the work, and added some facts of his own observation. In particular the occurrence of a knob of serpentine discovered by himself in the neighborhood of Syracuse, being the only mass of igneous rock known in the vicinity of the salt springs.

Mr. Hall exhibited a geological map of the middle portion of the United States, as far west as the Mississippi, compiled from his own observations and information furnished by other geologists. He also exhibited fossils from various localities, calling attention to the fact, made obvious from the specimens shown, that fossils of the same species are found of larger dimensions and fuller development as we proceed westward.

Dr. Gould read portions of a letter from Rev. Mr. Mason, of Burmah, a Corresponding Member of the Society, accompanying some specimens of shells and seeds from that region.

ADDITIONS TO THE CABINET.

A species of *Raia*, from Porto Rico, presented by *J. Tyler, Jr. Esq.*, of this city, was referred to Dr. Storer. The thanks of the Society were presented to the donor.

ADDITIONS TO THE LIBRARY.

Mineralogy of New York, by Lewis C. Beck, M. D. 4to. Albany, 1842. *From the Author.*

Zoölogical Contributions, No. 3. Svo pamph. *From S. S. Haldeman.*

March 20, 1844.

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

Dr. S. L. Abbot reported the addition to the Cabinet of the following mounted birds of Massachusetts :

Crested Titmouse,	<i>Parus bicolor.</i>
Summer Red-bird—male,	<i>Tanagra æstiva.</i>
Sharp-tailed Finch,	<i>Fringilla caudacuta.</i>
Swamp Sparrow,	<i>Fringilla palustris.</i>
Brown Titlark,	<i>Anthus spinoletta.</i>
Shore Lark,	<i>Alauda alpestris.</i>
Purple Gallinule,	<i>Gallinula martinica.</i>
American Bittern,	<i>Ardea minor.</i>
Carolina Turtle-dove—male and female,	<i>Columba Carolinensis.</i>
Pied-bill Dobbick—male,	<i>Podiceps Carolinensis.</i>
Ring-neck Duck—male,	<i>Fuligula rufitorques.</i>

The last two were presented by Mr. George Lieb, of Philadelphia. The turtle doves by Dr. T. M. Brewer.

Dr. Gould exhibited a *Helix*, sent him from Dr. T. R. Ingalls, of Greenwich, N. Y.

Dr. G. identified it with *H. lucida* of Europe ; this adds another to the introduced species. He also described two species of *Helix* from the Sandwich Islands, which he named *Helix setigera* and *H. stellula*.

H. SETIGERA. Testa discoidea, parva, tenui, fusco et luteo tessellata; supra planulata, apice indentata; anfractibus quinis, clathris creberrimis setigeris aliquando denudatis insignibus; subtus late umbilicata; apertura lunata, lamellis duabus internis conspicuis volventibus.

H. STELLULA. Testa parva, discoidea, supra planulata, subtus convexa, utroque umbilicata, fusca interdum luteo maculata, anfractibus quatuor triquetris, costibus frequentibus elevatis, acutis, ad peripheriam carinatum stellatis; apertura rhomboidea, lamella unica interna, elevata, volvente instructa; labro simplici.

Dr. Cabot read a letter from Dr. Bachman, in answer to

inquiries made with regard to a specimen of deer with palmated horns, to which the attention of the Society was called at a previous meeting.* Dr. Bachman considered them merely variations from the normal condition, and that the individual was a specimen of *Cervus Virginianus*.

The following gentlemen were elected to corresponding membership :

George Lieb, of Philadelphia.

Spencer F. Baird, of Carlisle, Penn.

ADDITIONS TO THE LIBRARY.

Michaux N. American Sylva. Edited by Thos. Nuttall. Parts I. and II. of Vol. IV. 8vo. Phil. 1842.

Schembri, Antonio; Quadro Geografico Ornitologico, ossia Quadro comparativo della Ornitologia di Malta, Sicilia, &c. Presented by the Author.

April 3, 1844.

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

Dr. Binney mentioned the fact that the piers of the bridge erected at E. Boston, about nine years since, were so far eroded by marine animals as to have become reduced to one fourth the original size, and suggested that the subject was deserving the attention of the Society.

Dr. Gould remarked, that the animal by which the erosion was effected was the *Limnoria terebrans*, noticed in the Report on the Invertebrata of Massachusetts, where the best method for guarding against its depredations is pointed out.

DONATION TO THE CABINET.

Skin of a Wolverine, taken on the Fish river, near Houlton, Maine, from *Major Townsend, U. S. Army.*

A seed vessel of from *Dr. J. B. S. Jackson.*

* Jan. 17th, 1844.

ADDITIONS TO THE LIBRARY.

Silliman's Journal, for April, 1844, from the *Editors*.

Audubon, J. J.—plates 21—25 of Quadrupeds of North America, from *Subscribers*.

Deshayes, G. P.—Description des Coquilles fossiles des environs de Paris; 4to. 2 vols. Plates. Paris, 1824—1835. *Courtois Fund*.

April 17, 1844.

Dr. Binney, President, in the Chair.

The Secretary being absent, Dr. Wyman was chosen Secretary pro tem.

Mr. Bouvé gave an analysis of a work referred to him at a previous meeting, entitled Coquilles fossiles des environs de Paris.

Dr. S. L. Abbot announced the addition to the Cabinet of the following mounted specimens of Massachusetts Birds:

Pileated Woodpecker—male,	<i>Picus pleatus</i> .
Canada Fly-catching Warbler— male,	<i>Myiodioces Canadensis</i> .
Bay-breasted Wood-Warbler— male,	<i>Sylvicola castanea</i> .
Chestnut-sided Wood-Warbler— female,	“ <i>icterocephala</i> .
Black-throated green Wood-War- bler—male,	“ <i>virrens</i> .
Blackburnian Wood-Warbler— male,	“ <i>Blackburniæ</i> .
Black and Yellow Wood-Warbler —male,	“ <i>maculosa</i> .
Pine Creeping Wood-Warbler— male,	“ <i>pinus</i> .
Golden-winged Swamp Warbler —male,	<i>Helenaia chrysoptera</i> .
House Wren,	<i>Troglodytes ædon</i> .

He also reported the addition to the Cabinet of the following mounted birds from Yucatan, viz. :

Lesser Ani.	<i>Crotophaga Ani.</i>
White-fronted Parrot.	<i>Psittacus leucocephalus.</i>
Peruvian Jay.	<i>Corvus Peruvianus.</i>
Black-throated Quail—male.	<i>Ortyx nigrogularis, Gould.</i>
Yucatan Motmot.	<i>Momotus Yucatacensis, Cabot.</i>

All the above specimens were received from Dr. Cabot, in exchange for duplicates in the collection of the Society.

He announced that 19 specimens of birds, from Dr. Cragin's donation, had been mounted and placed in the collection.

Dr. Abbot announced the donation of a valuable collection of birds' eggs, from Dr. T. M. Brewer. *Rallus crepitans, Quiscalus major, Turdus polyglottus, Fringilla passerina, Icterus spurius, Troglodytes palustris, Muscicapa crinita*—American species. *Turdus merula, Emberiza citrinella, Vanellus cristatus, Lanius collurio, Passer domesticus, Turdus musicus, Perdix rubra, Perdix coturnix*—European species.

The President read a letter from the Baron Delessert, acknowledging his election to corresponding membership.

Dr. Gould announced the donation of several species of minerals of Nova Scotia, from Mr. Tho. McCulloch.

ADDITIONS TO THE LIBRARY.

Owen, Richard. Lectures on the comparative Anatomy, &c. of Invertebral Animals. 8vo. London, 1843. *From Audubon Fund.*

Newport, George. Address before the Entomological Soc. of London. 8vo. pam. 1844. *Author.*

57th Annual Report of Regents of University of N. York. 8vo. Albany, 1844. *T. R. Beck.*

Linsley, J. H. Catalogue of Reptiles of Connecticut. 8vo. pam. New Haven. *Author.*

Browne, P. A. Essay on Solid Meteors. 8vo. pam. Philadelphia. *Author.*

Annals and Mag. of Nat. History, No. 84, for April, 1844. 8vo. London. *Courtis Fund.*

Dana, J. D. *System of Mineralogy*. 8vo. N. York and London, 1844. *Author*.

Review of the same. 8vo. pam. New Haven, 1844. *Author*.
 Proceedings of Amer. Philos. Society, Vol. IV., No. 28. 8vo. pam. Philadelphia. *A. P. Soc.*

Annual Meeting, May 1, 1844.

The President in the Chair.

The President gave some notices of the early history, progress, and present state of the Society. He stated the pressing necessity for enlarged accommodations for the Collections and Library, and his belief that an appeal should now be made to the public for aid. He then read the Reports of the Curators, Librarian and Treasurer, of which the following are abstracts.

Entomology.—The collection of insects in the hall has been infected to an alarming extent by the Anthrænus. This has induced the Curator to retain a large portion of the collection in his own keeping, which, with the utmost vigilance and at no little trouble, he has succeeded in saving from destruction. He earnestly recommends that tight glass cases be provided, as the only effectual means of preserving the insects.

Mineralogy.—The most valuable specimens, about 600 in number, are arranged in the glazed cases. These will, in general, compare favorably with corresponding specimens in most cabinets. They are arranged on the chemical system of Beudant. There are also many valuable specimens in the drawers. The principal donations have been a box from Rev. Mr. Winslow, of Maryland, and Mr. Thomas McCulloch, of Halifax.

Ichthyology.—The fishes are all scientifically arranged, in good preservation, and good condition for study. There have been added several species from Connecticut, by the late Rev. J. H. Linsley; *Leuciscus nasutus*, by W. O. Ayres; *Trichiurus lepturus*, by H. W. Abbot; *Platessa glabra*, *Sphyræna borealis* and *Caranx chrysops*, by the Curator,—the first a new species, and all previously unknown in the waters of Massachusetts.

Herpetology.—Numerous additions have been made by Mr. J. L.

Dimmock, Dr. N. B. Shurtleff, Rev. J. H. Linsley, Dr. F. W. Cragin, and Dr. Thomas S. Savage. Dr. Cragin's donation consisted of 23 jars, containing nearly 100 specimens of Saurian, Ophidian and Batrachian reptiles, all in excellent preservation. It is greatly to be regretted that so rich and valuable a collection must remain in comparative obscurity until more ample apartments are provided for the cabinet.

Ornithology.—There have been obtained 23 specimens of the birds of Massachusetts, comprising 20 species. These have all been mounted and placed in the cases. Fifteen species of birds' eggs have been presented by Dr. T. M. Brewer. Nineteen skins, from Dr. Cragin's donation, and 5 Yucatan species, from Dr. Cabot, have been mounted. The whole collection has been baked, and is quite free from insects. The names of most of the species received from Dr. Cragin have been ascertained, and labels attached. The whole number now mounted is 233, of which 195 are birds of Massachusetts, unmounted skins 592; in all 825.

Geology.—The principal donations have been, fossils from the cretaceous formations of Alabama, by James Brazer; from New Jersey green sand, by Prof. H. D. Rogers; shells, from Wilmington, N. C., by Dr. Gould; silurian remains, from Nova Scotia, by T. McCulloch. The cabinet contains about 1000 specimens, about one half of which are tertiary, the remainder of the older formations; a large number are yet undetermined, and must remain so until the library is better supplied with works on Paleontology.

Comparative Anatomy.—Few additions have been made, but articles of value are in preparation. Every specimen in the cabinet has been freed from insects by being subjected to over 180° Fahr. in the society's steam oven, and future ravages prevented by the free application of poisonous washes.

Library.—There have been added 26 vols. and 68 pamphlets, among which are the "Plantæ Asiaticæ rariores" of Dr. Wallich, by J. P. Cushing, Esq.; and the "Quadrupeds of America," of Audubon, by several subscribers. The several works are specified, from time to time, in the Society's "Proceedings."

Treasury.—Income from the Courtis Fund, - - - \$604 00
On hand, May 1, 1842, - - - - - 212 00

\$816 00

Of which there has been expended :

For the Library, - - -	- 116 49	
For the Cabinet, - - -	- 170 00	
For the Journal, - - -	- 225 98	
		<u>512 47</u>
Balance on hand, - - - - -	- \$303 53	
Income from assessments, - - - - -	- 473 00	
Ordinary Expenses, - - - - -	- 656 38	
		<u>\$183 38</u>
Deficit, - - - - -	- \$183 38	

In two years, a debt of \$258 45 has been incurred, in consequence of members having withdrawn, either from the necessity of economizing, or from a want of interest in its objects. These vacancies have not been filled by the accession of new members. The Treasurer urges the necessity of instant and active exertions, to draw to the support of the Society a large number of new members, who will give the aid of their money, if not of their time and talents.

The Annual Address was then given by Prof. Asa Gray, of Harvard University. It gave an abstract of the recent progress and present state of Vegetable Physiology, and was listened to with profound attention by a numerous audience.

Voted, that the thanks of the Society be presented to Prof. Gray, for the eloquent and appropriate address delivered before it this day, and that he be respectfully requested to communicate a copy for publication.

Voted, that the President be requested to prepare a sketch of the doings of this annual meeting, together with his remarks on the wants and claims of the Society, to be circulated extensively in a pamphlet form, among the members and friends of the Society.

Mr. Bulfinch and Dr. J. B. S. Jackson were chosen a committee to procure an Address for the next annual meeting.

The Society then proceeded to ballot for officers for the

ensuing year. Mr. Belknap and Mr. Abbot having declined a réélection as Curators, the following gentlemen were unanimously chosen.

President.

Amos Binney.

Vice Presidents.

Charles T. Jackson,
D. Humphreys Storer.

Corresponding Secretary.

Augustus A. Gould.

Recording Secretary.

Thomas Bulfinch.

Treasurer.

John James Dixwell.

Curators.

BOTANY.—J. E. Teschemacher.

ENTOMOLOGY.—T. W. Harris.

ICHTHYOLOGY AND HERPETOLOGY.—Jeffreys Wyman.

CONCHOLOGY.—Augustus A. Gould.

MINERALOGY.—Martin Gay.

COMPARATIVE ANATOMY.—N. B. Shurtleff.

GEOLOGY.—Thomas T. Bouvé.

ORNITHOLOGY.—Samuel Cabot, Jr.

Librarian.

Charles K. Dillaway.

Cabinet Keeper.

Henry J. Bigelow.

On motion of Dr. C. T. Jackson, it was voted, that the thanks of the Society be presented to Dr. Abbot for his efficient and valuable services for two years past as Curator of Ornithology.

The meeting was then adjourned.

ADDITIONS TO THE LIBRARY.

Annals and Mag. of Nat. Hist., No. 83, for March, 1844. London. *Courtis Fund.*

Proceedings of Amer. Philos. Society, Vol. IV., No. 29. Svo. pam. Philadelphia. *A. P. Soc.*

Audubon's Quadrupeds of America—Plates 26 to 30. *Subscribers.* (See page 137 of this vol.)

May 15, 1844.

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

The Secretary presented, in behalf of G. H. Snelling, Esq., a phial containing sand from the Desert of Sahara, collected by Commander Nicholson. Dr. C. T. Jackson took charge of it for examination.

Dr. Storer stated, that he had received a letter from Mr. John L. Le Conte, of New York, informing him that he had prepared a monograph of the genus *Scarites*, containing six American species, for which he asks insertion in our Journal. He has added also several new species of insects from Missouri, viz., one *Cicindela*, two *Calosoma*, one *Dytiscus*, a new genus of *Heteromera*, and a magnificent *Lamia*, nearly two inches long.

The subject of Mr. F. S. Stallcknecht's bill for services, in relation to the exchange of our Journal with scientific bodies abroad, was called up, and after debate it was voted, that the Treasurer be authorized and instructed to pay him fifty dollars.

Voted, that the Librarian be requested to prepare a list of the Societies to which the Journal is sent in exchange; and also to state if publications in return for it are duly received. Voted, also, that the Corresponding Secretary be requested to propose an exchange of the Journal for the "Comptes rendus" of the French Institute.

Drs. J. B. S. Jackson, J. Wyman and H. J. Bigelow were chosen a committee to consider what profitable disposition may be made of the Solar Microscope belonging to the Society.

Dr. Abbot requested permission to use the Hall of the Society for a course of lectures which he proposes to give on Ornithology. Voted unanimously.

ADDITIONS TO THE LIBRARY.

Transactions of Amer. Philos. Society, Part I., Vol. IX. 4to. Philadelphia. *A. P. Soc.*

Annals and Mag. of Nat. History, No. 85, for May, 1844. *Courtis Fund.*

Gray's (G. R.) Genera of Birds, No. 1. Long 4to. London, 1844. *Audubon Fund.*

June 5, 1844.

Dr. D. H. Storer, Vice President, in the Chair.

Dr. Cabot announced the addition of the following specimens of birds, new to the collection, viz. : *Cuculus Americanus*, female; *Sylvia coronata*, male and female; *Troglodytes brevirostris*, male; *Fringilla palustris*; *Sylvia Americana* :—also the following duplicate specimens, viz. : *Sylvia parus*, *S. coronata*, (male and female,) *S. varia*, (male,) *S. icterocephala*, (male,) *S. marilandica*, (male,) *Vireo olivaceus*, (two males,) *Troglodytes brevirostris*, (male,) *Tanagra rubra*, (male,) *Turdus Wilsonii*, (male,) *Picus auratus*, (male.)

On motion of Dr. Cabot, Voted, that it be recommended to the Curators to publish, from time to time, in the Proceedings, lists of duplicate specimens, which it may be considered expedient to offer in exchange.

Dr. Cabot exhibited a specimen of *Columba Trudeavii*, Audubon, which he had procured in Yucatan. He had exhibited this dove to Mr. Audubon, in the summer of 1842, and had been informed by Mr. A. that the species was already described. He saw, therefore, with surprise, Mr. A.'s descriptions and figure in his late number of the "Birds of America," where it is announced as a new species.

Dr. Gould reported on Part I., Vol. IX., of the Transactions of the Philosophical Society. A paper by Mr. I. Lea, describing shells supposed to be new, was particularly noticed. The descriptions are brief, and drawn from the

shells alone, the animal being in all cases omitted. Considering the great variations which species of *Melania* are known to exhibit, Dr. G. thought there was reason to apprehend that many of the supposed species would prove merely varieties.

Dr. J. B. S. Jackson called the attention of the Society to the injury which the button-wood tree has for several years past undergone, from some unknown cause; and suggested the propriety of appointing a Committee to investigate the subject. Rev. J. Lewis Russell was chosen a committee, with the request that he would communicate the result of his observations for publication.

Dr. Storer read a letter from Mr. J. P. Couthouy, relating to the termination of the controversy between him and Mr. James D. Dana, in which Mr. D. acquitted him from the charge of plagiarism he had previously made against Mr. C.

The report of the Librarian on the state of the exchange list of the Journal was read, and it was Voted, that the Corresponding Secretary write to Societies which have been remiss in forwarding their publications, enquiring whether they wish to continue the exchange, and notifying them of the non-reception of their publications.

Voted, that the future meetings of the Society, during the summer, be held in the Hall of the Society, at 4 o'clock, P. M.

ADDITIONS TO THE LIBRARY.

Annual Report of Commissioner of Patents, (Congressional Doc.) 8vo. pam. *R. C. Winthrop.*

Forskall, P. *Flora Ægyptiaco Arabica.* 4to. Hauniæ, 1775. *Amos Binney.*

June 19, 1844.

Dr. Storer, Vice President, in the Chair.

A communication from Mr. J. E. Teschemacher was read, as follows:

There are in this State very extensive palm-leaf manufactories,

in which the sweepings and dust, arising from splitting the leaf, accumulate to a large amount, and are thrown away as useless. I here present two specimens of vegetable wax, extracted from these sweepings, one of which has been melted in hot water. Also the two proximate ingredients, Cereine and Myricine, into which I have separated it, in order to prove its identity. The Cereine is originally deposited in a white gelatinous mass. This I have melted.

That this wax is the glossy covering which is spread by nature over the surface of the leaf and stem, may be seen on inspecting the two specimens of leaf, one previous to, and the other after my operation to deprive it of the wax. The so called wax of the common *Myrica cerifera*, as is well known, is a vegetable tallow, containing Stearine and the other ingredients of fat.

I am of opinion, though without having made any detailed and exact experiments, that from these sweepings may be extracted sufficient wax to pay a good profit; for from what I have tried, I cannot imagine the expense would exceed 40 or 50 per cent. of the value of the wax made. It can easily be made of a pure white color.

Dr. Storer presented from Mr. J. Le Conte a paper entitled "Monograph of American Histeroides," for publication in the Journal. Twenty-five species are characterized as new, viz.:

P. COARCTATUM. Elytris striis quatuor integris æqualibus, quinta et suturali abbreviatis, hac brevioribus. Habitat in provinciis Australibus.

P. GRACILE. Syn. : *Hister frontalis*, Say.

P. ATTENUATUM. Fronte excavato. Elytris striis dorsalibus quatuor primis et suturali integris, quinta e serie punctorum constituta. Hab. in prov. Australibus.

OMALODES BOREALIS. Thorace lateribus punctatis, stria margini valdè approximata. Elytris striis dorsalibus quatuor, marginali valdè abbreviata, suturali nulla. Tibiis omnibus 4-dentatis. Hab. ad Insulam longum, Nov-Eboraci.

O. HARRISII. Punctatus. Thorace bistriato, striis integris, approximatis. Elytris striis omnibus integris. Tibiis anticis 4-dentatis. Hab. in Pennsylvania.

HISTER FŒDATUS. Syn. : *H. melanarius*, Dej. Cat.

H. DECISUS. Thorace punctatissimo, striis inequalibus. Elytris

striis profundè punctatis, quatuor primis dorsalibus integris, marginali dislocato-interrupta. Tibiis anticis crenato-denticulatis. Hab. in Georgia.

H. SPÆTUS. Thorace margine postico punctato, striis subæqualibus, insterstitiis lævi. Elytris striis tribus integris, quarta et suturali abbreviatis, quinta penè obsoleta, marginali dislocato-interrupta; tibiis anticis 2 seu 3-dentatis. Hab. Georgia.

H. CURTATUS. Thorace striis inequalibus. Elytris striis dorsalibus quatuor integris, marginali utrinque valdè abbreviata. Tibiis anticis 3-dentatis; dente anteriori emarginato. Hab. Pennsylvania.

H. DISPAR. Thorace striis inequalibus, exteriore brevissima. Elytris striis dorsalibus tribus, cum suturali integris. Tibiis anticis 3-dentatis. Hab. Georgia.

H. COGNATUS. Thorace lateribus punctatis, stria marginali posticè abbreviata, Elytris striis quatuor integris, quinta et suturali anticè abbreviatis. Tibiis anticis 5-dentatis. Hab. Nov-Eboraco.

EPIERUS MINOR. Thorace punctato. Elytris punctulatissimis, striis omnibus integris, punctatis, lateralibus duabus. Tibiis anticis ciliatis. Hab. in provinciis Australibus.

TRIBALUS AMERICANUS. Punctatissimus; elytris striis oblitteratis; lateralibus duabus, tibiis inermibus. Hab. in Georgia et Carolina.

PAROMALUS AFFINIS. Punctatus. Elytris striis dorsalibus, excepta prima, obsoletis; tibiis anticis subquadridentatis. Hab. Nov-Eboraco.

SAPRINUS IMPERFECTUS. Fronte impressa; thorace disco, elytrisque anticè impunctatis; stria suturali utrinque abbreviata. Tibiis anticis crenato-dentatis. Hab. Pennsylvania.

S. PICEUS. Thorace antice, lateribusque punctato, medio postice lævissimo. Elytris punctatis, macula magna basali propè suturam lævi. Tibiis anticis crenatis. Hab. ad oris maris.

S. MINUTUS. Thorace disco lævi, lateribus latè, margineque postico angustè punctatis. Tibiis anticis 5-dentatis. Hab. in excrementis bovinis.

S. IMPRESSUS. Thorace anticè utrinque grandè et profundè impresso, disco lævi, marginibus punctatis. Elytris posticè et lateribus punctatis. Tibiis anticis dentato-spinosis. Hab. Georgia.

S. DELETUS. Ubique punctatus. Thorace æquali. Elytris vix macula impunctata ad basin, stria suturali ferè oblitterata, brevissima; tibiis anticis 4-dentatis. Hab. Georgia.

S. OREGONENSIS. Ater ; fronte marginato. Thoracis lateribus margineque antico et postico punctatis. Elytris posticè introrsum punctatis. Tibiis anticis crenatis. Hab. Oregon.

S. BIGENER. Thorace lateribus punctato-subrugosis, disco parvo lævi. Elytris posticè punctatis. Tibiis anticis 4 dentato-crenatis. Hab. in cadaveribus piscium.

ONTHOPHILUS PLURICOSTATUS. Thorace lineis sex elevatis, prima anticè, tertia posticè paulò abbreviatis. Elytris costis 14 elevatis. Hab. Georgia.

O. NODATUS. Thorace lineis sex elevatis, prima anticè abbreviata, secunda integra, tertia posticè paulò abbreviata. Elytris costis octo elevatis. Hab. Georgia.

ABREUS ACICULATUS. Aciculatus. Thorace anticè vix emarginato. Elytris stria basali obliqua. Hab. Georgia et Carolina.

A. SIMPLEX. Puncticulatus. Elytris stria rudimentali vix conspicua. Hab. Georgia et Carolina.

A. OBLIQUUS. Punctatus. Elytris stria basali obliqua, abbreviata. Hab. Carolina.

A. FIMETARIUS. Grossè punctatus. Elytris stria obliqua abbreviata basali obsoletissima. Long. lin. $\frac{1}{4}$. Hab. Georgia.

Dr. Gould communicated, on behalf of Dr. J. W. Mighels, some specimens of shells, with descriptions :

PUPA COSTULATA. Shell ovate-conic, scalariform, light yellowish brown, thin and fragile, whorls four, convex, the last two prominently ribbed, the first two smooth ; suture distinct ; aperture semi-circular, slightly oblique, unarmed ; lip simple or modified by the last rib ; umbilicus distinct. Length, 2-15 inch ; breadth nearly 1-10. Hab. Portland.

HELIX SUBMERIS. Shell conic-globose, smooth, incremental striæ distinct, apex subacute ; spire elevated, whorls five and a half, suture distinct, epidermis dark chesnut or mahogany colored, mottled, with an interrupted white zone around the body whorl ; convex beneath, umbilicus minute, the region white ; lip simple, thickened within ; internal lip blending with the last whorl, and, with the inner margin of the outer lip, of a beautiful rose tint. Height, 1-2 inch ; breadth the same ; depth, 2-5 inch. Hab. Key West, Florida.

OSTEODESMA ÆRUGINOSA. Shell irregular oval, thin, semi-per-

laceous, opaque, inequilateral; rounded anteriorly, elongated and truncated posteriorly; beaks prominent, umbonial region tumid, compressed posteriorly; epidermis thin, wrinkled, of a rusty brown color, with raised lines of a darker color radiating from the beak. Width, 3-5 inch; height, 1-3; depth, 3-8 inch. Hab. Gulf of St. Lawrence.

TELLINA ELUCENS. Shell sub-oval, thin, white, shining; incremental striæ fine and delicate; inequilateral, short and somewhat pointed behind; produced, widened and rounded before; one cardinal tooth in each valve, lateral teeth obsolete. Width, 2-5 inch; height, 1-4; depth, 1-10 inch. Hab. Casco Bay.

MYTILUS MINGANENSIS. Shell oblong-oval; beaks terminal, slightly curved; basal and ligament margins equally curved, greatest width nearly central; rounded anteriorly; epidermis dark reddish brown; deep blue internally; muscular impressions violet, iridescent. Length, 2 1-4; breadth, 1 3-10 inches. Hab. Gulf of St. Lawrence, at Mingan.

BULLA INCINCTA. Shell small, cylindrical, opaque, white; whorls three, the first slightly depressed, the last distinctly girded above the middle; epidermis yellowish; spire obtuse, elevated; suture canaliculate; aperture narrow behind, wide and rounded before; right lip sharp, entire, advanced in the central region, with a fissure posteriorly. Length, 3-25; breadth, 3-50 inch. Hab. Casco Bay.

CYPRICARDIA NODULOSA. Shell oblong, very inequilateral, tumid and rounded anteriorly; produced, compressed and pointed posteriorly; beaks elevated, delicately pointed and curved forward; color a light yellowish brown, with numerous dark colored spots, distributed irregularly; surface with about eighteen strong, nodulous ribs radiating from the beaks; interior white, with a tinge of purple posteriorly; two flat, sub-conical cardinal teeth, under and anterior to the beak in the right valve, one tooth, with a groove in the left; a thin lamina and pit in each valve behind and near the beaks, with a distinct, elongated, distant lateral tooth in each valve, with alternate, corresponding grooves. Width, 1-10; height and depth 2-5 inch. Hab. Key West, Florida.

CYPRICARDIA CORRUGATA. Shell angular, oblong, very inequilateral, much inflated, thick and solid; irregularly rounded before; attenuated, produced and obliquely truncated behind; beaks ob-

tuse, slightly elevated, nearly terminal; color dirty white; ligament mostly external, lines of growth coarse, and corrugated; interior white, with a stain of purple on the posterior and hinge margin; three unequal cardinal teeth in each valve; a strong, projecting, triangular, flat tooth in the left valve, with a corresponding disunion in the right. Width, 1 3-5; height, 9-10; depth, 2-5 inch. Hab. Zanzibar.

PLEUROTOMA INSCULPTA. Shell slender, turreted, surface cancellated; whorls eight, angular; suture impressed, with an approximate, raised, revolving line; aperture about one third the length of the shell; fissure distinct, broad; canal short and wide; color white, excepting two or three of the upper whorls, which are reddish brown. Length, 7-10; width, 1-4 inch. Hab. Key West, Florida.

SCHIZOSTOMA CYLINDRACEA. Shell nearly smooth, cylindrical, thick, with slight revolving undulations; epidermis olivaceous; spire ovate-conic, eroded; whorls three or four, flattened, shouldered; suture distinct, aperture oval; fissure deep and wide. Hab. Warrior River, Alabama.

SCHIZOSTOMA CURTA. Shell short, sub-globose, smooth, thick and solid; epidermis dark green, with two or three revolving bands of a darker color; spire short, obtuse, eroded; whorls three or four, flattened in the middle; suture superficial; aperture pear-shaped; fissure distinct. Hab. Warrior River, Alabama.

Dr. Gould added, that he regarded the *Pupa costulata* as being the *Helix harpa* of Say,—the only *Helix* that author described which had not been previously re-discovered. Mr. Say found his specimen in the Northwest Territory; and it is not a little singular that the shell should come to light again at so wide a distance in the northeast. He had also received the *Cypricardia nodulosa* from Mr. Conrad, under the name of *Carditamera Floridana*.

Dr. Storer mentioned the formation of a Natural History Society at Portland, and suggested the donation of our Journal and Proceedings. The Secretary was directed to correspond on the subject.

The President communicated a letter from the Royal Academy of Literature and Science of Munich, offering an ex-

change of publications. Voted, that the Librarian be instructed to send a copy of the Journal and Proceedings to the Academy, and request such of their publications as relate to subjects of Nat. History in exchange.

Dr. Cabot announced the donation to the Society of an Eagle, mounted, from Increase S. Smith, Esq., of Hingham.

ADDITIONS TO THE LIBRARY.

Annals and Mag. of Nat. Hist., Nos. 86 and Supp. 87, for June, 1844. *Curtis Fund.*

Thomson, Wm. Report on the Fauna of Ireland. Div. Invertebrata. Svo. pam. London, 1844. *Author.*

Waterhouse, G. R. Observations on Classification of the Mammalia. Svo. pam. London. *Author.*

Waterhouse, G. R. Contributions to the Entomology of S. America. Svo. pam. London. *Author.*

Alger's (F.) Phillips' Mineralogy. Svo. Boston, 1844. *Editor.*
North American Review, for July, 1844. Svo. Boston. *Editor.*

July 17, 1844.

The President in the Chair.

Dr. Brewer called the attention of the Society to some facts tending to clear up the confusion and errors in the history of the Hermit Thrush, (*Turdus solitarius*, Wilson.)

There are three distinct species which, by different authors, have been strangely mixed up. Wilson described one as *Turdus mustelinus*, tawny thrush. This is common, and is now known as *T. Wilsonii*. The second is described by Wilson under the name of *T. solitarius*, hermit thrush; but under the same name he has also given a figure of a third species, every way distinct. This last is not described in either of the works of Audubon.

Swainson recognizes three species, but has confounded them in a most remarkable manner. The first, he describes as a new species, *Merula minor*; the second he describes as *Merula solitaria*, but accompanies it with a plate of the third species; while he confounds the third with *T. Wilsonii*.

In De la Sagra's work on Cuba, all three species are thrown together, and called *Merula minor*. In Audubon, correct descriptions are given of two species, but the habits, locality, &c. of the third, are given as those of *M. solitaria*.

The specific marks of the three species may be briefly summed up :

MERULA WILSONII. Uniform foxy color ; breast clouded rather than spotted ; common in New England and to the north ; not found in Pennsylvania except in its migrations ; nests in bushes ; eggs blue, unspotted.

MERULA SOLITARIA. Rufous brown, back tinged with olive ; tail rufous without the olive ; cinnamon spot on the under part of wing ; breast deeply spotted on a white ground ; tail slightly forked. Passes north early in April ; a northern species, rarely breeding so far to the south as Massachusetts ; nests on the ground ; eggs bright green, unspotted.

MERULA OLIVACEA, Brewer. Back uniformly olive brown, no tinge of rufous ; tail uniform with the back ; ground color of breast salmon, strongly spotted ; tail even ; nests on trees ; eggs spotted with brown, on a blue ground ; most abundant in the State of Pennsylvania and to the south.

A paper from Mr. J. E. Teschemacher was read, as follows :

“ A parcel of the Beryls from Ackworth, N. H., having arrived here lately, I have had an opportunity of examining them in quantity, and have found, on the smoky quartz in which many are embedded, the mineral Uranium, both in green and yellow cubic crystals and in the state of yellow oxide. This not being mentioned in the recent works of Dana and Alger, is reason for thinking the locality new for Uranium.

Whether the dark yellow color of many of these Ackworth beryls, particularly those in the dark quartz above mentioned, may not be derived from this substance, is perhaps worth enquiry ; but the chief purport of this communication is to draw attention to the fact, that all the appearances of this mineral, Uranium, at Ackworth, are so very similar to those of its appearance in the Tourmaline locality at Chesterfield, that a close comparison of the two localities would seem to be an object of considerable interest to

the well practised geologist and mineralogist. These two places also afford small quantities of a mineral which I consider as new, and which is now under analysis. Ackworth is, I believe, about 90 miles N. N. E. from Chesterfield."

The following persons were elected Corresponding Members, viz. :

Dr. J. Lawrence Smith, of Charleston, S. C.
 Prof. E. Mitchell, of Chapel Hill, N. C.
 Mr. Tuomey, Esq., of Petersburg, Va.
 Dr. J. W. Mighels, of Portland, Me.

DONATIONS TO THE CABINET.

Mr. Bouvé presented, in behalf of *Mr. Nathaniel Brewer*, nine silurian fossils, viz. : *Asaphus longicaudatus*, 3 specimens ; *Hypanthocrinus celatus* ; *Caryocrinus ornatus* ; Calymene—; *Gor-gonia reticulata*.

Dr. Gould presented, in behalf of *Dr. Wheatland*, of Salem, several specimens of Land Shells ;—and from *J. G. Anthony*, a specimen of Scorpion, from Little Rock, Arkansas.

Thanks were voted to the donors.

ADDITIONS TO THE LIBRARY.

Annals and Mag. of Natural History, No. 88, for July, 1844. London. *Courtis Fund*.

Gray's Genera of Birds, Nos. 2 and 3. London. *Audubon Fund*.

Silliman's Amer. Journal of Science and Arts, No. 1, Vol. XLVII, for July, 1844. 8vo. New Haven. *Editor*.

Audubon's Quadrupeds of America—Plates 31 to 35. *Subscribers*. (See page 137.)

Proceedings of Acad. of Nat. Sciences of Philadelphia, No. 1, Vol. II. *A. N. Sc.*

Morton, S. G. Inquiry into the distinctive characteristics of the Aboriginal Race of America. 2d Edition. 8vo. pam. Philadel. 1844. *Author*.

Morton, S. G. Crania Ægyptiaca. 4to. Philadelphia, 1844. *Author*.

August 7, 1844.

Dr. Storer, Vice President, in the Chair.

Rev. J. L. Russell read a report of his observations and conclusions respecting the disease of the button wood tree. After a general description of the phenomena attending the loss of the foliage, and mentioning the causes to which it has been attributed, such as *worms* gnawing the leaves, *aphides*, *psoci*, *scolyti*, *fire blight*, &c., he proceeds :

In order, if possible, to discover the cause, I cut some healthy twigs of the previous summer's growth, on March 7th, and found, that even then, many of the buds were already dead, and below these, and some of the other buds also, a streak of incipient decay was to be seen. This streak of decay, examined by a powerful achromatic lens, exhibited no presence of *fungi*, or, indeed, any immediate cause of death to the tissue. In some of these buds I found *ova* of insects,—and in a dead spot on a twig, beneath the bark, I extracted a very minute *larva*; and from a sketch of it which I showed Dr. T. W. Harris, it was pronounced as probably that of a *Psocus*, an insect infesting only diseased or decayed wood and bark. It is to be observed, also, that on the decay of the bark and buds, innumerable minute swellings are to be found on the *exterior* of the twigs, which are a species of Fungus, also always present in the decaying wood or bark of a great variety of trees and shrubs, belonging to the genus *Stromatosphaeria*, but as in the case of the *Psoci*, not the cause of the disease.

The winter of 1843-4 was unusually cold, and destroyed vast numbers of fruit trees in some sections of the vicinity of Boston. These fruit trees exhibited a similar appearance to that of the Buttonwoods, except that in their case the result has been fatal. Young peaches, cherries, pears, have gradually died, even after leafing, flowering and setting their fruit. In fact they were winter killed. I think that this is the condition of the Buttonwood trees about Boston. Well-ripened wood is always essential to vigorous health in perennial vegetation. For several years no such young wood has been seen in these trees. Neither have they produced any flowers since the disease was noticed, excepting a few in the year 1842.

Now these flowers, and the *button balls*, (seeds,) are produced on the twigs of the previous summer. These twigs being uniformly killed, an entire new growth is made from adventitious buds, bursting from the base of the twigs. From these, sometimes grow shoots three or four feet long, as they did this past summer. *The disease, then, is in the young growth*, and until a mild winter, or other circumstances, favor the ripening of the shoots, the trees will suffer. Severity of winter does not necessarily destroy a young growth; one of the most certain causes is the continued growing, produced by warm autumnal weather protracted beyond the usual period, especially if it be moist or rainy, succeeding a dry summer.

It is difficult to determine *when* these trees were first winter killed. Dr. Harris, to whom allusion has been previously made, thinks this occurred about five years ago, and from a freezing and very cold storm late in the spring, when the leaves were pushing forth. That we have late severe weather is familiar to every one; and I find, according to my diary, that so late as May 2d, in 1837, after the foliage of the Horse Chesnut, (*Æsculus hippocastanum, W.*) had expanded in Salem, there was a very severe freezing and considerable ice.

But the interesting question occurs,—Will the trees die? I answer, probably not. The great vigor in the larger limbs will eventually enable them to survive, until favorable circumstances facilitate the ripening of the young wood. Doubtless some will perish, and I have noticed several fine old shade trees destined for death. But these have been generally exposed to some previous injury,—such as cutting away the roots,—or else had been planted in some unfavorable situation. It seems to me, that whoever would save his trees should let them alone, trusting to the natural causes of vital and vegetative principles to renovate them; and that severe pruning, or wholly depriving them of their branches, cannot produce any good end, and may prove fatal.

Dr. Storer exhibited a very singular specimen of the *Platessa oblonga*, Mitchill, (*P. ocellaris, De Kay.*) Both sides were colored and the head distorted. The upper eye was situated directly upon the top of the head, and about a quarter of an inch back of the eyes was a large arch, from the anterior angle of which arose the dorsal fin. He re-

marked that a similar deformity had been noticed and figured by Yarrell, when describing *Pleuronectes rhombus*.

Dr. S. also presented a beautiful specimen of *Pleuronectes maculatus* or *aquosus*, Mitchill, called by the fishermen, on account of its translucency, the Watery Flounder.

From Mitchill's inaccurate figure, Dr. S. had been led to suppose this fish to be the *Platessa oblonga*, and he had so arranged it in his "Fishes of Massachusetts;" but had been corrected by the good description and figure of this fish by Dr. De Kay. The specimen now presented was the first he had heard of as being taken in the waters of this State. It was caught at Provincetown.

Dr. Storer also stated that a Sunfish, *Orthogoriscus mola*, weighing from 300 to 400 pounds, had been recently taken at the upper south bridge, in this city, where it had strayed and was harpooned.

A specimen of Copper Ore, from Lake Superior, was presented by R. Gale, Esq.

Henderson Inches, Esq. and B. A. Gould, Jr. were elected members.

August 21, 1844.

Dr. Storer, Vice President, in the Chair.

Dr. Wyman exhibited specimens of male and female Ichneumon Wasp; also their larvæ, inhabiting the pupæ of a Vanessa. Of numerous specimens which he had examined, more than one half were infested with these larvæ, in different stages of development.

Prof. Lewis R. Gibbes, of Charleston, S. C., read a description of a new species of Salamander, recently discovered by him in the neighborhood of Charleston, S. C. Its characters are as follows :

SALAMANDRA MELANOSTICTA. Toes four; inferior surface silvery white, dotted with jet black spots; snout yellow; tail twice the length of the body.

The description, with a beautiful drawing, was placed in the hands of the Publishing Committee.

September 4, 1844.

Dr. Storer, Vice President, in the Chair.

Dr. Wyman mentioned, that, on a late visit to the Magalloway River, he had noticed, in the river bed, mounds of pebbles, two or three feet in diameter, which he was told were heaped up by a fish called the Chub, at its breeding season, and that its eggs were deposited among the stones. He referred to the statement of a similar fact with regard to the Lamprey Eel, in Dr. Storer's report, and remarked that he was not aware of any other instance of the kind.

Dr. W. also mentioned that Dr. H. J. Bigelow had observed, in the same river, specimens of fresh water sponge, (*Spongia fluviatilis*.) The masses were generally of a flat form, half an inch thick and six or eight inches in diameter. Spiculæ were found in it as in marine sponge. Lamarck maintained that fresh water sponges were devoid of spicula, but later observations have disproved this.

ADDITIONS TO THE CABINET.

Two living specimens of Agama, from Texas; and a phial containing eggs, 18 of which were deposited by one individual. Also Gophers, from Florida. *From Capt. Gerry*, U. S. N.

Specimens of Vegetable Ivory. *From Mr. John A. Lerow*.

Cranium of a Woodchuck, with a remarkable distortion and prolongation of the incisors. *From Mr. Wright*, through Mr. Ogden.

A beautiful Trilobite, embedded in a fragment of limestone, picked up on Long Island, in Boston Harbor. *By Mr. Ogden*, in behalf of a friend.

Thanks were voted to the donors.

ADDITIONS TO THE LIBRARY.

Gray's Genera of Birds, No. 4. *Subscribers*. (See page 137.)
Proceedings of Amer. Philos. Soc., No. 30, for April. Juné, 1844. *A. P. Soc.*

Almanach der Koniglichen bayerischen Akademie der Wissenschaften. 12mo. Munchen, 1843. *Akademie*.

September 18, 1844.

Dr. Storer, Vice President, in the Chair.

Some conversation arose on the subject of the mounds in the Magalloway River, mentioned at the last meeting, supposed to have been built by the fishes, for the purpose of depositing their eggs within the pile.

Dr. Bigelow stated, on the authority of an experienced angler, that the stones are removed by the fish, for the purpose of depositing the spawn in the cavity thereby left in the sand.

Dr. J. B. S. Jackson exhibited a parasitic Worm, one of several found in the *Python Natalensis*.

Dr. J. also reported on the cranium of a Woodchuck, presented at the last meeting. He supposed the elongation of the incisors had arisen in consequence of an injury to the jaw, by which the direction of the teeth had been changed, and thus their opposition being destroyed, the usual wearing away of their points had not taken place. The marks of disease were perceptible on the jaw.

Dr. Storer exhibited a figure of *Scomber zonatus*, Mitchell, from Wellfleet harbor. The fish was taken in a pool left in the mud by the bottom of a vessel, and was the only specimen he had known to be taken in Massachusetts waters.

Mr. Henry M. Parker was proposed for membership.

ADDITIONS TO THE CABINET.

Operculated tube of a Spider, (*Cteniza nidulans*) from Jamaica. By Dr. J. B. S. Jackson.

Beautiful specimen of Sponge, from the Mediterranean, attached to a stone. By Edward Codman, in behalf of Edward Lamb, Esq.

Body of a young Albatross? found in African guano. By Henry Sheafe.

ADDITIONS TO THE LIBRARY.

Annals and Mag. of Nat. Hist., Vol. XIV., No. 90, for Sept. 1844. *Courtis Fund.*

Gray's Genera of Birds, No. 5. London. *Subscribers.* (See page 137.)

October 2, 1844.

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

Dr. C. T. Jackson had recently made a tour to Lake Superior for scientific purposes, and laid before the Society some of the specimens he had obtained. These were the skins of fishes, whose local names were Trout, Pike, White Fish, Boney Pike, Siskewit and Mullet; several shells, among which were two species of *Anodon*, *Unio purpureus*, Say: *Limnea jugularis*, Say: and a few odd valves of *Unio*.

Dr. Gould thought it worthy of note, that one or more species of *Unio*, which are chiefly confined to the region east of the great mountain range, should be found so far to westward. He had never heard of their having been before found west of the limits of New York.

Dr. J. also presented the skins of a Raven and a Canada Jay, in behalf of Mr. C. C. Douglass; and a Bat from that region, in behalf of Capt. B. A. Stannard, of the brig Astor, of Cleveland.

Dr. Wyman presented, in behalf of Mr. T. J. Crawford, of the White Mountains, a Salamander, resembling *S. symmetrica*, but distinguished by spots on the back.

Dr. Storer presented, in behalf of Capt. E. H. Faucon, specimens of Barnacles, from the bottom of ship Clarkson, of Nantucket, absent 45 months, on a whaling voyage, in the Indian Ocean.

Thanks were voted for these several donations.

Henry M. Parker, Esq., was unanimously elected a member.

ADDITIONS TO THE LIBRARY.

North American Review for Oct. 1844. *Editors.*

Silliman's American Journal of Science and Arts, Vol. XLVII, No. 2. *Editors.*

Gray's Genera of Birds, No. 6. *Subscribers.* (See page 187.)

Annals and Mag. of Nat. History, No. 91, for Oct. 1844. *Courtis Fund.*

Gray, John E. List of Specimens of Birds in British Museum, Parts I and III. 12mo. London, 1844. *Editor.*

Gray, John E. List of Specimens of Mammalia in British Museum. *Editor.*

Gray, John E. List of Specimens of Myriapoda in British Museum. *Editor.*

Gray, John E. List of Specimens of Tortoises, Crocodiles and Amphibænians in British Museum. *Editor.*

November 6, 1844.

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

The description of a new fish, from the continuation of Dr. Kirtland's paper on the Fishes of Ohio, was read :

LEUCISCUS STORERIANUS. *Head* small, quadrangular, flattened between the eyes, angulated above the nostrils, which are separated by a longitudinal sulcation. *Nose* obtuse, somewhat conical, projecting beyond the mouth. *Nostrils* large, on a line with the eye. *Eyes* oblong oval; iris silvery and slightly gilt on inner margin; pupils black. *Operculum* and *præoperculum* smooth, lustre bright, silvery. *Mouth* diagonal, and, when closed, the lower lip is nearly concealed beneath the snout.

Body elongated, slightly compressed laterally. *Back* rises rapidly from the head to the dorsal fin, from thence to the tail it slopes more gradually and uniformly. *Abdomen* expands beneath the pectoral fin, and continues of the same size to the vent; it then rapidly diminishes to the tail. *Lateral line* straight, except that near its base it curves as high as the upper edge of the operculum.

Dorsal fin elevated, trapezoidal; caudal elongated, bilobed, with the tip of each lobe acute; anal fin falls short of the dorsal; ventral horizontal, and reaches to the vent; pectoral falcate, nearly horizontal, not attaining to the ventral by half an inch.

Length 8 inches; head 1 3-8 inch; tail 1 5-8 inch; depth of body at the commencement of the dorsal fin 1 5-8 inch.

Color. Back and upper surface of body and head olivaceous; sides silvery and of a brilliant metallic lustre, with a brownish band extending the whole length of the lateral line; pectoral and ventral fins yellowish, anal white and translucent; three or four exte-

rior rays of the caudal fin sometimes milky and opaque, and the intervening dusky.

D. 9; C. 23?; A. 9; V. 9; P. 15. Hab. Lake Erie.

Dr. C. T. Jackson read a paper communicated by Richard Soule, Jr., giving an account of experiments on the juice of Cornstalk, made Sept. and Oct. 1844, an abstract of which is as follows :

Having failed to procure some stalks which had been prepared by cutting off the embryo ears, some stalks of vigorous growth were taken from a field of White Virginia Corn, which had produced no ears, having sprung from seed sown broad cast.

Eighty-one pounds, crushed between iron rollers, yielded three gallons of clear juice, of a density of 6° of Beaumé's hydrometer. This was evaporated over muriate of lime to 9° Beaumé, and allowed to stand over night, when a copious green precipitate was found. It was again heated, clarified by white of eggs, strained and evaporated to the proof point of crystallization. After standing twelve hours no crystals were yielded, and it remained a dense sweet syrup, with a perceptible flavor of acidity. It weighed 2½ lbs.

A portion of this was diluted; treated, when hot, with clear lime water. A copious brown precipitate soon fell, which I took to be apocrenate of lime. This was separated by filtration, and the syrup evaporated again to the proof point, but no crystals could be obtained.

It was now suspected that the syrup contained nothing but grape sugar; and upon comparing it with syrup made by the action of sulphuric acid on starch, and subjecting the two to similar tests, the suspicion was proved to be correct.

The experiment cannot be regarded as decisive, because the stalk was not cultivated with suitable preparation for the production of sugar. It may be doubted whether a stalk, which, from any cause, does not produce an ear, contains juices in the same state, as regards saccharine matter, as stalks which have put forth ears that have been subsequently removed.

The syrup was also examined to see if it contained *ammonia*, and the *crenic*, *apocrenic* and *humic acids*, after the manner pointed out by Dr. C. T. Jackson, in his report on the Geology of Rhode Island, and they were all found. *Extract of humus* might doubtless have been found, if any method were known of separating it from such a mixture.

Dr. Storer presented a paper which had been forwarded to him, entitled "Descriptions of some new species of Coleopterous Insects inhabiting the United States, by John L. Le Conte." The following species are characterized and figured :

SCARITES SUBSTRIATUS, Haldeman, *S. otus*, Nob. Ms.

SCARITES EPHIALTUS. Mandibulis totis obliqué striatis ; capite anticé rugoso : impressionibus frontalibus rugosis. Long. lin. $14\frac{1}{2}$; lat. $4\frac{1}{2}$. Hab. in provinciis Australibus.

SCARITES INTERMEDIUS. Mandibularum sulco valdè profundo, indiviso, lævi. Impressionibus frontalibus laterioribus, rugosis, profundioribus. Long. lin. 12 ; lat. $3\frac{1}{2}$. Hab. in provinciis occidentalibus.

SCARITES SUBTERRANEUS, Auct. Hab. ubique.

SCARITES AFFINIS. Mandibulorum sulco lineâ obliqua elevata diviso, lævi ; impressionibus frontalibus rugosis, linea obliqua selita satis distincta. Long. lin. 9 ; lat. $2\frac{3}{4}$. Hab. ubique.

SCARITES PATEVELIS. Mandibularum sulco profundo, excavato, lævi ; impressionibus frontalibus profunde rugosis. Long. lin. $6\frac{3}{4}$; lat. $2\frac{1}{4}$. Hab. Georgia.

CICINDELA AUDUBONII. Viridis ; capite thoraceque æneo-micantibus ; elytris margine laterali aureo, fascia media sinuata, abbreviata, gutta postica submarginali, lunulaque terminali albis. Hab. flum. Yellow-Stone.

CALOSOMA LEPIDUM. Nigrum ; elytris nigro-brunneis, profundè striatis, transversè rugosis, foveisque viridi-æneis triplici serie. Hab. Missouri.

CALOSOMA TRISTE. Nigrum ; elytris obsoletissimè punctato-striatis, punctisque majoribus triplici serie impressis. Hab. Missouri.

DYTISCUS MARGINICOLLIS. Ellipticus ; supra viridi-olivaceus, infra brunneus ; thoracis limbo, scutello, elytrorum margine, pedibusque testaceis. Hab. flum. Missouri.

LAMIA BELLII. Nigra ; transversè albo fasciata. Hab. Missouri.

Dr. Gould read an interesting letter from Rev. Francis Mason, missionary at Tavoy, acknowledging a notice of his election as Corresponding Member, containing some ac-

count of the state of science there, and many zoölogical and botanical notices :

The province of Tavoy and the other adjacent provinces are almost entirely unexplored. They were visited by Dr. Wallich many years ago, and some of his botanical discoveries were published in his "*Plantæ Asiaticæ rariorēs*," a copy of which never has reached that coast. Dr. Griffiths also made an excursion there, and made extensive collections, but no account of them has ever been given, so that the flora is yet almost wholly unknown.

Somewhat more has been done in zoölogy, and yet very little certain information is abroad concerning even the quadrupeds. There are five or six species of deer, but not one of them is identified with certainty. The name of the most common monkey is not known positively. A British officer had not long since written that he had procured a monster from a Karen, such a beast as no one had before seen. It proved to be a Tapir, the first that had been seen on the coast by Europeans, though Mr. M. had been aware of its existence, from native descriptions, for many years.

Several collections of birds had been made and carried to Bengal, but he was not aware that collections of either the reptiles, insects or shells had been made. Mr. M. was collecting in the two latter departments.

He alluded to a remarkable climatal difference between this and the opposite, or Coromandel coast, as indicated by the vegetation. Several plants were mentioned, which, in the latter place, grow on elevated land, but which are found at a level with the sea in Tavoy. He accounts for this difference by the fact, that on the Coromandel coast, the monsoons in the summer season blow overland from the south-west ; while it is a sea breeze, and accompanied by 200 or 300 inches of rain, in Tavoy. On the other hand, in the winter, the Tavoy wind comes overland from the mountains of China, while it is a sea breeze on the opposite coast ; so that the cold season, as well as the hot season, is rendered cooler.

He mentioned that, as the business of collection was considered somewhat anti-missionary, very little assistance could be obtained from others ; but that he should avail himself of such opportunities as would not interfere with his proper duties, to collect objects for the Society.

Dr. C. T. Jackson exhibited specimens of the following minerals, which he had obtained during his recent explorations on Keweenaw Point, Lake Superior :

Datholite, from a large vein in trap rocks, in large and brilliant crystals, having a violet tint near their edges, owing to the presence of oxide of manganese. The crystals of this mineral also frequently contain delicate scales of brilliant metallic copper enclosed within them. Prehnite, which also abounds in large veins in the trap rocks of the same region, contains metallic copper in the midst of the crystals.

This metal is also found in calcareous spar, and in nearly all the veins which traverse the amygdaloidal trap, and the contiguous conglomerate rocks.

A few specimens of native copper and silver, from a vein in the amygdaloid of Eagle river, were exhibited, and it was remarked that the copper, besides containing a certain proportion of silver combined with it in the state of an alloy, had a number of patches of pure silver intermixed with it, appearing as if it had been segregated from the alloy during its cooling from a melted state. It not unfrequently happens, that pieces of copper and silver are united only at their edges by interfusion, without being alloyed beyond those limits. Sometimes small veins of the silver traverse masses of solid metallic copper. In one piece it was observed, that at one end of a piece of copper the silver was in separate patches and veins, and at the other the metals were combined as an alloy. It is difficult to explain these singular phenomena, and chemical art has not succeeded in imitating them ; for when silver and copper are melted together, they intimately unite, and the silver disappears from view. There can be no doubt, however, that the metals found in the Lake Superior amygdaloidal trap, have been fused at as high a temperature as was required to liquify the rocks in which they are found, for they bear evident marks of entire fusion, and are as vesicular as the common lavas of Vesuvius, Etna, and Peak of Teneriffe.

At some future meetings, a more full account of the mines of Lake Superior may be laid before the Society.

Dr. Storer announced that he had received the following Fishes, from Mobile Bay, from Geo. W. Abbot, Esq., viz. :

Sargus rhomboides, *Micropogon costatus*, *Grystes salmoides*, and two species of *Pomotis*.

Dr. Jackson stated that Prof. Emmons had expressed a desire to address the Society, on the subject of the views of Prof. H. D. Rogers on earthquake agency in geological formations.

It was voted that Dr. J. be requested to notify Prof. E. that the Society would gladly hear an exposition of his views.

The following persons were elected as Corresponding Members :

Benjamin A. Stannard, of Cleaveland, Ohio.

C. C. Douglass, of Detroit, Mich.

Geo. A. Perkins, M. D., Missionary at Cape Palmas, Africa.

James G. Richards and Thomas Daniel were nominated for membership.

Nov. 20, 1844.

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

Dr. Gould presented a paper from Mr. Henry C. Lea, of Philadelphia, entitled "A Description of some new species of Marine Shells inhabiting the Coast of the United States." It was accompanied with figures of the Shells, which are characterized as follows :

PHOLAS SEMICOSTATA. Testa subtriangulari, posticè producta, et acuta, anticè obliquè truncatâ, tenui, albidâ, diaphanâ, anticè inflata et costatâ ; costis transversalibus, muricatis, magnis, crebris, posticè obsoletis ; sulco uno longitudinali, e natibus decurrente ; margine basali curvato ; margine dorsali vix recto ; natibus valdè inflatis ; laminâ dorsali parvâ ; cochlea ligulatâ, acutissimâ, incurvâ. Long. ,17 ; lat. ,32 ; diam. ,16 poll. Hab. South Carolina.

BULLA BPLICATA. Testâ cylindricâ, subquadratâ, crassâ, albidâ, politâ, eburneâ ; spirâ occultâ ; anfractu ultimo supernè calloso, infernè striis transversis parvis ; aperturâ supernè arctatâ, ovatâ ; columellâ plicâ magnâ et parvâ. Long. ,15 ; lat. ,07 poll. Hab. Cape May.

LITTORINA LUNATA. Testâ quadrangulari, imperforatâ, crassâ, costatâ, lutescente vel brunneâ; spirâ elevatâ, conicâ, acutâ; suturis inconspicuis; anfractibus quatuor, planis, costis transversis magnis crebris; anfractu ultimo angulato, usque ad basin costato; aperturâ obliquè ellipticâ; labro acuto, undulato; columellâ infernè latissimâ, planâ. Long. ,07; lat. ,05 poll. Hab. Cape May.

CINGULA ROBUSTA. Testâ ovato-acuminatâ, perforatâ, lævi, crassâ, albâ; spirâ brevi, sub-acutâ; suturis impressis; anfractibus quinque, ad suturam superiorem subangulatis; anfractu ultimo rotundo; basi lævi; perforatione arctatâ, profundâ; aperturâ ovatâ, magnâ. Long. ,10; lat. ,07 poll. Hab. Cape May.

CINGULA MODESTA. Testâ ovatâ, imperforatâ, lævi, tenui, diaphanâ, viridicorneâ; spirâ brevi, ovatâ, haud acutâ; suturis parvis; anfractibus quatuor, planulatis; anfractu ultimo rotundato; basi lævi; aperturâ ovatâ, supernè acutâ, infernè rotundatâ. Long. ,10; lat. ,06 poll. Hab. Brooklyn, Long Island.

CINGULA TURRICULUS. Testâ elevata-conicâ, perforatâ, lævi, crassâ, fulvâ; spirâ valdè exsertâ, conicâ, obtusâ; suturis parvis; anfract. 6, convexis; anfr. ultimo. sub-bullato; perforatione parvâ, arctatâ, lunatâ; aperturâ ovatâ; columellâ crassâ, anfractu ultimo pene disjunctâ. Long. ,12; lat. ,05 poll. Hab. South Carolina.

Dr. Storer presented a paper from William O. Ayres, of East Hartford, Ct., entitled "An Attempt to prove that *Cottus cognatus*, Richardson, *C. viscosus*, Haldemann, and *Uranidea quiescens*, De Kay, are one species, and identical with *Cottus gobio* of Linnæus."

A very minute comparison is instituted of the external characters and internal anatomy of the American and European fishes, and also of the several descriptions given of them by authors. The paper was referred to the Publishing Committee.

Mr. Edward Tuckerman presented a paper entitled "A further enumeration of some alpine and other Lichenes of New-England."

The author's observations have been made chiefly in the limited district of the White Mountains. He compares the Lichenes of this district with those of the Scandinavian Peninsula and Scotland, though he considers that it might have been more properly compared with a particular district in one of those countries, as Dovre,

in Norway—for which, however, he had not the necessary authorities. Excluding the Leprariæ, Spilomata, and Variolariæ, and reducing, according to the Friesian method, a large number of species to varieties, he had been able to determine about 165 species; which, probably, includes the largest part of the Lichenes of this small district. The following table shows the comparative condition of the species of each genus in the two districts above named, so far as known :

Tribes.	Genera.	No. of species in the European Dist's.	No. of species in N. England.	Of which peculiar to N. Eng'ld.
Parmeliacæ,	{ 1 Usnea,	1	1	.
	{ 2 Evernia,	8	4	.
	{ 3 Ramalina,	5	2	.
	{ 4 Cetraria,	10	10	3
	{ 5 Nephroma,	4	4	.
	{ 6 Peltigera,	7	6	.
	{ 7 Solonia,	2	2	.
	{ 8 Sticta,	8	5	.
	{ 9 Parmelia,	87	51	.
	{ 10 Gyalecta,	2	0	.
Lecidineæ,	{ 11 Stereocaulon,	7	4	.
	{ 12 Cladonia,	25	18	.
	{ 13 Beoomyces,	1	1	.
	{ 14 Biatora,	24	8	.
	{ 15 Lecidea,	39	13	.
Graphidieæ,	{ 16 Umbilicaria,	8	9	2
	{ 17 Opegrapha,	5	4	.
	{ 18 Lecanactis,	1	0	.
Calicieæ,	{ 19 Coniocybe,	3	1	.
	{ 20 Calicium,	22	5	.
Sphærophoreæ,	{ 21 Sphærophoron,	3	2	.
	{ 22 Siphula,	1	0	.
Endocarpeæ,	{ 23 Endocarpon,	4	3	.
	{ 24 Pertusaria,	5	2	.
	{ 25 Thelotrema,	1	2	1
Verrucariæ,	{ 26 Segestria,	2	0	.
	{ 27 Verrucaria,	15	6	1
		290	163	7

The species noticed in the paper are, *Usnea longissima*. *Evernia ochroleuca*. *Cetraria nivalis*. *Peltigera malacea*. *Sticta glomerulifera*. *Parmelia incurva*, *ambigua*, *aleurites*, *detonsa*, *hypoleuca*, *rubiginosa*, *lanuginosa*, *straminea*, *murorum*, *oculata*, *verrucosa*. *Stereocaulon corallinum*, *paschale*, *denudatum*, *condensatum*.

Cladonia cæspiticia, delicata, fimbriata. Biatora placophylla, rivulosa. Lecidia sorediata. Umbilicaria pustulata. Opegrapha atra. Calicium subtile, trachelinum. Ephebe pubescens.

Mr. Tuckerman also communicated memoranda of a glacier, or field of ice, observed by Mr. C. W. Goddard and himself, on the 4th November, 1844, just below the summit of the Peak of Mt. Washington, on the western declivity. It was 80 feet long, 20 feet wide, and, at its upper edge, a foot thick. Its inclination was about 45°. The whole of the mountain was, at the time, covered with snow, which, throughout the alpine district, lay pretty thick. The upper part of the peak of the mountain was covered with ice, thinly sprinkled with snow.

Dr. C. T. Jackson communicated a paper from Mr. A. A. Hayes, containing analyses of specimens of meteoric iron, furnished him for the purpose by Dr. Jackson.

The object particularly in view, in making the analysis, was to ascertain the presence of chlorine, as observed by him, and published in the American Journal of Science, Vol. 34, 1838. The result was, a confirmation of Dr. Jackson's discovery, and the establishment of the fact of the existence of chlorine as a constituent part of meteoric stones.

Dr. Jackson also communicated a paper, entitled "Remarks on the Alabama Meteoric Iron, with a chemical analysis of the drops of green liquid which exude from it."

Dr. Jackson stated, that he made an analysis of the Alabama meteoric iron, in August, 1834, and published the results of that analysis, in 1838. The discovery of the combination of chlorine with nickel and iron, was then first announced, and was a new and interesting fact in the science of meteorites. Professor C. U. Shepherd had since confirmed the discovery, by experiments on meteoric iron from Buncombe, N. C., but seemed to doubt the origin of the chlorine. Dr. Jackson stated that no one who had seen his specimen *could* doubt, for chlorohydrates of nickel and iron are copiously effused from the interior of the mass, and from every point of the cut and polished surface. Drops of a grass green liquid, from the size of a pin's head to that of a pea, are continually forming upon it, and run down upon the shelf of the

cabinet, leaving a thin shell of the peroxide of iron in the place of the drops. With the utmost care, and with the use of layers of varnish, he had not been able to keep the surface bright longer than a few days. The natural surface of the stone does not give out drops of the chlorohydrates, for the chlorine has long been exhausted therefrom. The results of two analyses, by Dr. Jackson, were as follows :

	1.	2.
Chlorohydric acid, . . .	0.8216 . . .	1.6468
Protoxide of iron, . . .	1.7000 . . .	3.2318
Oxide of nickel, . . .	0.6000 . . .	2.0000
	3.1216	6.8786

Mr. Stodder reported on a pamphlet committed to him, entitled "An Essay on Solid Meteors, by Peter A. Browne, LL. D."

The author advances an hypothesis of the composition of these bodies, which Mr. S. considered the most plausible which has been offered, viz : that solid meteors are composed of the native metals, and the metallic bases of the earths, and alkalies. That these elementary substances, on entering our atmosphere, combine with the oxygen of the air, for which they have a strong affinity, and thus present the phenomena of ignition, combustion, and explosion, which usually attend their appearance. Mr. S., after examining the various theories on the subject, expressed his opinion, "that meteors are bodies moving in space, their origin independent of any other known member of the solar system, and identical with shooting stars. He did not, however, agree with the author in believing that mere contact with the atmosphere is capable of producing their ignition, nor does he consider it proved that the condensation of air in their passage through it is sufficient to account for this effect. He remarked, in closing, "there is one substance found in meteoric stones, in combination with others, which, if it existed in them uncombined, would be adequate to account for all the phenomena, wherever air should be present. This substance is protoxide of iron. It is never found on the earth, except in combination, for it takes fire instantaneously by contact with the air, and becomes per-oxide. The great objection to admitting this sub-

stance to be the agent of the heat of meteors, is the difficulty of accounting for the products of combustion. We find no per-oxide of iron in meteorites."

Mr. B. A. Gould, Jr., in connection with the subject of meteorites, and with the supposed periodical display of falling stars, on the night of the 13th November, annually, remarked,

"That he had, for several successive years, kept watch on that night, from twilight until day-break, and especially on the night of the 13th of the current month. He had not perceived any unusual frequency of falling stars, having been able to notice only six in an hour on the last occasion, a number smaller than the average observable on most clear nights of the year."

James B. Richards and Thomas Daniel were elected members of the Society.

ADDITIONS TO THE LIBRARY.

Mantell, G. A. *Medals of Creation, or First Lessons in Geology.* 2 vols. 12mo. London, 1844. *Audubon Fund.*

Gray, G. R. *Genera of Birds.* Part 7. London, 1844, *Audubon Fund.*

Annals and Magazine of Natural History, for November, 1844. *Courtis Fund.*

Morton, S. G., M. D. On a supposed new species of Hippopotamus. *Author.*

Report of Committee to visit Missions in the Levant. By Rufus Anderson. Svo. pam. 1844.

Thirty-first Annual Report of the American Board of Commissioners for Foreign Missions. Svo. pam. 1844. *The Board.*

December 4, 1844.

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

Mr. Emerson read the introduction of a paper communicated by John Lewis Russell, Corresponding Member of the Society, entitled "Musci of Eastern Massachusetts."

The paper contains descriptions of 120 species and varieties, determined from specimens collected in the vicinity of Boston, by the author and his friends. It was referred to the Publishing Committee.

Dr. Cabot exhibited specimens, and made some remarks upon the habits of the male and female of *Pyrrhula raptor*—the native name *Trapin*, from Yucatan. He also noticed the birds from near Lake Superior, presented at a former meeting, by Mr. Douglass, viz:

Corvus corax, . . . Raven.

Garrulus Canadensis, Canada Jay.

Picus arcticus, . . . American three-toed Woodpecker.

Dr. Asa Gray read a paper, entitled "Characters of some new genera and species of plants of the natural order Compositæ, from the Rocky Mountains and Upper California." In this paper the following genera and species were characterized:

Genus MONOPTILON. *Torrey & Gray.*

Compositæ-Asteroidæ: Subtr. Asterinæ: Div. Asteræ.

Capitulum multiflorum, heterogamum; floribus radii 1-serialibus ligulatis fœmineis, disci tubulosis hemaphroditis, omnibus fertilibus. Involucrum fere uniseriale Erigerontis. Recaptaculum convexum, nudum. Corollæ tubus radii et disci sparse hirtus: ligulæ obovato-oblongæ. Stili Asteroidearum; rami fl. hermaph. Appendicolo triangulari obtuso terminati. Achenia oblongi-obovata, leviter obcompressa, sparsim hirtella, binervia (ad margines) vel in radio trinervia. Pappus coniformis, duplex; exterior e coronula brevissima crenulata persistente; interior seta capillaris unica, caduca, discum adæquans, basi scabrida, apicem versus sensim clavatumque plumosa! Herba annua, exigua, depressa, villosa-pubescent; foliis sparsis oblongo-vel lineari-spathulatis, integris; capitulis subsessilibus vel bracteatis. Flores disci flavi, ligulæ ut videtur albæ, cæruleo vel lilacino tinctæ.

Species *M. BELLIDIFORMIS. Torrey & Gray.*

Genus AMPHIPAPPUS. *Torrey & Gray.*

Compositæ-Asteroidæ: Subtr. Asterinæ: Div. Chrysocomæ.

Capitulum plerumque 7-florum heterogamum; nempe, flore radii

unico, ligulato, fæmineo, fertili, et floribus disci 4-6 tubulosis, hermaphroditis, sed sterilibus? Involucrum obovoideum; squamis 6-7 subæqualibus, chartaceis, ovalibus, concavis, subcarinatis, appresso-imbricatis. Receptaculum angustum, subalveolatum. Ligula brevis, obovata, discum vix excedens: corolla fl. disci e tubo gracili infundibuliformis, limbo profunde 5-fido; laciniis lineari-oblongis revolutis. Styli rami breves Linosyridis; appendiculo ovato-deltaideo superati. Achenium radii oblongo-obconicum vel obcompressum, villosum, pappo uniseriali paleaceo (e squamellis pluribus setaceis nunc basi, nunc fere ad apicem sæpius in phalanges vario modo concretis,) achenio dimidio brevior superatum. Achenia disci, ut videtur infertilia, turbinata, glabra, pappo piloso uniseriali elongato instructa; setis rigidulis, denticulatis, valde inæqualibus; majoribus imo sæpe subcomplanatis et ramosis, seu potius cum minoribus nonnullis pl. m. concretis.—Frutex ramosissimus 1-2-pedalis, glabriusculus. Folia alterna, brevia, spatulata, mucronata, vix puncticulata, integerrima, sessilia, vel in petiolum brevem attenuata. Capitula numerosissima, in corymbis fasciculisve aggregata more Solidaginis § Euthamiæ, vel Gutierrezæ, sed squamæ involucri nec ad apicem herbaceæ, nec forsan glutinosæ. Flores aurei.

Species A. FREMONTII. *Torrey & Gray.*

Genus CALLIACHYRIS. *Torrey & Gray.*

Compositæ-Senecionideæ: Subtr. Heleniæ: Div. Madieæ.

Omnia Callichroæ subgen, Calliglossæ, *Torr. & Gray*; sed pappus palaceus; paleis 10-12, subæqualibus, lanceolato-ovatis, subulato-aristatis, corolla paulo brevioribus, basi pilis 2-3 elongatis utrinque instructis. Corollæ tubus pilosus. Herba annua vel biennis; facie omnino Callichroæ (Calliglossæ) Douglasii.

Species C. FREMONTII. *Torrey & Gray.*

Genus ANISOCOMA. *Torrey & Gray.*

Compositæ-Cichoraceæ: Subtribe Scorzonereæ.

Capitulum pluriflorum. Involucrum cylindræum; squamis subcariosis, adpressis, obtusis; interioribus 5-7 lineari-oblongis, subæqualibus; exterioribus 4-6 multo brevioribus, subrotundis, imbricatis et quasi calyculatis. Receptaculum planum squamellis nonnullis piliformibus inter flores exteriores onustum. Achenia turbinato-fusiformia, sericeo-pilosa, erostria. Pappus duplex; exterior coroniformis, crenulatus, persistens; interior e setis densis rigidulis

uniserialibus, basi nudis, supra medium plumosis constans, decidua, inæqualis; nempe setis 5 corollam subæquantibus, et 5 alternantibus iisdem dimidio brevioribus. Herba annua, (biennisve?) glabra, acaulis, foliis radicalibus linearibus pinnatifidis, lobis brevibus, hinc inde mucronato-denticulatis. Scapi simplices, nudi, spithamæi, monocephali, foliis multo longiores. Capitulum unciale. Flores lutei: pappus niveus.

Species A. ACAULIS. *Torrey & Gray.*

PYRECOMA FOLIOSA. *Torr. & Gr.* Humilis, e radice crassa perpendiculari multicaulis, glabrata; caulibus confertim foliosis; foliis oblongo-lanceolatis (1-2-uncialibus,) integerrimis, mucronato-cuspidatis; summis in squamas involucri lanceolatas, acuminatas, mucronato-setigeras, sensim transeuntibus; ligulis numerosis exsertis; corolla fl. discipappo æquilonga. Oregon.

APLOPAPPUS TORTIFOLIUS. *Torr. & Gr.* Fructiculosus, lana decidua tectus et pube brevissima scabridus; ramis inferne foliosis, apice in pedunculum longum nudum monocephalum productis; foliis coriaceis semi-amplexicaulibus, elongato-lanceolatis, spinuloso-dentatis lobatisve, undulatis, vario modo tortis; squamis involucri hemisphærici subulato-lanceolatis, imbricatis, granuloso-scabridis, extimis tomentoso-canescensibus; ligulis (ut videtur flavis) 30-40 linearibus, prælongis; pappo rufescente; acheniis sericeo-villosis. Upper California.

ACTINELLA GRANDIFLORA. *Torr. & Gr.* Depressa, villosotomentosa; caulibus numerosis e caudice crassa, simplicibus (4-5 uncialibus,) sparsim foliatis, monocephalis; foliis radicalibus pinnato-partitis demum glabratis, segmentis linearibus integerrimis vel 2-3 fidis, caulinis supremis linearibus fere integris; squamis involucri valde lanati biseriatis, linearibus, æqualibus, pappi paleis circ. 6, Augusto-lanceolatis, acuminatis, corollam disci subæquantibus. Capitulum ratione pl. magnum, eaque Gaillardie aristatæ æmulans. Rocky Mountains.

Dr. Gould called the attention of the Society to a specimen of lime-stone, from Lake Erie, containing numerous conical masses, whose nature and origin have not been made out satisfactorily. He pointed out their resemblance to recent *Balani*, of the genus *Conia*. The resemblance in form and striæ, and mode of aggregation, was striking,

and seemed to show clearly, that the cones in question were none other than fossil *Balani*.

Mr. Milton D. Whipple of Lowell was elected a member of the Society.

ADDITIONS TO THE CABINET.

Stalactites from Gen. H. A. S. Dearborn.

December 18, 1844.

J. E. Teschemacher, Esq., in the Chair.

Mr. B. A. Gould, Jr., read an extended notice of the contents of recent numbers of the *Memoires de la Société de Physique et d'Histoire Naturelle de Genève* with a synopsis of the biographies of Messrs. Huber and Decandolle.

ADDITIONS TO THE LIBRARY.

Forbes, J. D. *Travels through the Alps of Savoy, &c.* 8vo. Edinburgh, 1843.

Gray, G. R. *Genera of Birds. Part 8. Audubon Fund.*

Annals and Magazine of Natural History, for December, 1844. Courtis Fund.

ERRATUM.—Page 151, 11th line from the bottom, for "Under the tail-coverts," read "Under tail-coverts." Page 155, 20th line, for "Tail 1½ inches," read "Tail 7½ inches." 9th line from bottom, for "lighter than the male," read "lighter than in the male." Page 156, 10th line, for "3-3 inches," read "3-3 of an inch." 22d line, for "1st primary longest; 4th shortest," read "4th primary longest; 1st shortest".