Annual report of the trustees of the Museum of Comparative Zoölogy, at Harvard College, in Cambridge : together with the report of the director, 1865.

Unable to display this page

SENATE..... .....No. 67.

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

MUSEUM OF COMPARATIVE ZOÖLOGY,

AT HARVARD COLLEGE, IN CAMBRIDGE,

TOGETHER WITH

THE REPORT OF THE DIRECTOR,

1865.

BOSTON:
WRIGHT & POTTER, STATE PRINTERS
No. 4 Spring Lane.
1866.

Commonwealth of Massachusetts.

Boston, January 31, 1866.

To the Honorable the Senate and House of Representatives:

The Trustees of the Museum of Comparative Zoölogy respectfully present their Report for the past year.

Mr. Nathaniel Thayer resigned the office of treasurer on the first day of August last, and Mr. Theodore Lyman was chosen to fill the vacancy.

On Mr. Thayer's resignation the Trustees adopted the following vote:

Voted, That the resignation of Mr. Thayer be accepted, and the thanks of this Board be presented to him for his faithful discharge of the duties of the office.

The transactions of the Museum for the year may be classed under two divisions, one relating to the administration at Cambridge, and the other to the expedition of Professor Agassiz to Brazil.

In regard to the first division, from the reports of the Committee on the Museum, it appears, that the shelves in the rooms where its resources are exhibited for the purpose of instruction have been filled up under the direction of Mr. Alexander Agassiz. Mr. Shaler has been employed in arranging the ample collection of fossils, so that the department of Paleontology is nearly complete in general arrangement. Mr. Uhler brought back large collections from Hayti, having been essentially aided by Mr. Wiener, American Consul at Jéremie. A large number of packages has been received from different parts of the world.

The first number of the illustated catalogue of the Museum, printed from the funds given for the purpose by the Commonwealth, has been issued. For the letter press of this volume the Museum is indebted to Mr. Theodore Lyman.

The operations of the Museum, under the charge of Mr. Alexander Agassiz, during the absence of the Director, have been conducted to the entire satisfaction of the Trustees; and his report, which is annexed, marked [A,] gives a statement in detail of its history for the year ending October 1st, 1865.

In regard to the second division, the expedition to Brazil, we shall receive full accounts, illustrated by his own enthusiasm, from Professor Agassiz, on his return, which is looked for in the coming summer. The Trustees however, think that it will be interesting to the legislature of the Commonwealth, which is so watchful of everything which promotes and develops the advancement of learning, and the progress of science, to receive some account of the expedition. For the large results which are promised, the community will recognize its obligations to the munificence of Mr. Nathaniel Thayer.

Before the departure of Professor Agassiz the Secretary of the Navy instructed our national vessels to take charge of and bring home, on their return, any collections committed to them as fruits of the expedition.

The party embarked at New York on board the Colorado, on the second day of April last for Rio de Janeiro. It consisted of sixteen persons, eight of whom were trained naturalists. A free passage to Rio was given by the Pacific Mail Steam-ship Company to the whole party. The Colorado was furnished by the owners with a large aquarium on deck, and all other appliances requisite for scientific investigations on the voyage.

On the twenty-second day of April the Colorado entered the bay of Rio, and Professor Agassiz, who had previously enjoyed a correspondence with the Emperor of Brazil, was received by him in the kindest manner. His majesty has continued to show great interest, and furnish great aid in every way. Free transportation has been provided by the railroads and other conveyances; and the facilities of communication by coaches, travelling at the rate of ten miles an hour, and rail cars at a speed of twenty to thirty miles an hour, are in striking contrast

with the journeys of his predecessors on the same field with the slow, sure-footed mule.

Professor Agassiz has delivered lectures in Rio to larger audiences than he ever before attracted. He writes: "Naturalists will be surprised at the revelations I am about to make concerning the extraordinary variety of animal life in the waters of the Amazon. We have been accustomed, for instance, to consider one hundred species as the probable maximum number of fishes living in any of the great streams of the world; there are not so many known from the Nile, the Ganges, or the Mississippi. The discovery of about fifteen hundred species of fishes in this vast fresh water basin was as unexpected to me, as would be the discovery of a large inland commerce in the interior of Africa carried on by steam navigation."

In conclusion, I present copies of the Orders passed by the Trustees:

Ordered, That the grateful acknowledgments of this Board be offered by the President to Nathaniel Thayer, Esq., for his munificent, kind, and well-considered arrangements, enabling Professor Louis Agassiz, in the way he most desires, and in the most efficient manner, to serve the interests of the Museum, and the cause of science, during his present absence in South America.

Ordered, That the grateful acknowledgments of this Board be presented to the Pacific Mail Steam-ship Company, to their agent, Mr. Allan McLane, and to Mr. George Bradbury, captain of their good ship the Colorado, for the free passage and excellent facilities of all kinds furnished by them to Professor Louis Agassiz and his associates on their voyage from New York to Rio de Janeiro, undertaken for scientific purposes connected with the Museum of Comparative Zoölogy, at Cambridge, Massachusetts.

Ordered, That his excellency John A. Andrew, governor of this Commonwealth, being *ex officio* President of this Board of Trustees of the Museum of Comparative Zoölogy in Cambridge, Massachusetts, do present to his majesty Don Pedro the Second, Emperor of Brazil, the grateful acknowledgments of the Trustees for the important contributions made by his imperial majesty to the resources of the institution under their care, and for the important countenance and kindness he has shown to Professor Louis Agassiz and his assistants now travelling in

his imperial majesty's dominions for purposes connected with the interests of this Museum, and with the advancement of science.

Ordered, That the President of this Board offer to the Secretary of the Navy their grateful acknowledgments for the facilities afforded under his directions to Professor Agassiz, relative to the transmission home of such collections as he may make for the advancement of science, during his present residence in South America.

The paper annexed, marked [B,] contains a list of the Trustees, their officers and committees, for 1866.

For the Trustees,

WM. GRAY, *Secretary.*

[A.]

SEVENTH ANNUAL REPORT

Of the Museum of Comparative Zoölogy, at Harvard College in Cambridge, Massachusetts,

By Alexander Agassiz, *Assistant in Charge.*

As the report of the Museum Committee to the Trustees, together with the action of the Board of Trustees relative to the expedition now collecting in Brazil, is printed with this Report, it is hardly necessary for me to do more than allude again to the munificent aid given by Mr. Nathaniel Thayer to the Director of the Museum, for the purpose of making a thorough scientific survey of certain parts of Brazil, with the view not only of advancing the interests of the institution, to which he has been such a generous friend, by adding the immense collections to be brought together to our stores, but also in the hope of giving Professor Agassiz larger materials for the solution of problems with which he has been identified from the commencement of his scientific career.

How far the aim of the expedition is likely to be accomplished can be gathered from the statements presented by the Museum Committee concerning the progress of the Thayer Expedition; since that period later advices from Professor Agassiz show that he has been eminently successful in making collections, as previous to his ascent of the Amazons no less than seventy-five barrels and boxes had been filled and were awaiting shipment at Rio Janeiro, Bahia and Pará. The unprecedented facilities offered to the expedition by the Brazilian government, as well as by the steam-boat and railroad companies, will contribute largely to its success and to the accumulation of collections. The Amazons Navigation Company, by placing a steamer at the disposal of Professor Agassiz, will enable him to make an exhaustive ichthyological survey of the Amazons and its tribu-

taries. The ichthyological collections will undoubtedly be the main feature of the expedition, and the inhabitants of the various hydrographic basins will be collected in such a thorough manner that it is hoped some light will be thrown on the geographical distribution of fishes, taking the different fresh water basins of Brazil as our basis.

The erratic phenomena have also been most successfully observed in the vicinity of Rio Janeiro, especially at Tijuca, a cluster of hills about 1,800 feet high and about seven miles from Rio, where a drift-hill is found with innumerable erratic boulders, as characteristic as any ever seen in New England. Professor Agassiz had already observed unmistakable traces of drift in the province of Rio and in Minas Geraes, but, everywhere connected with the drift itself, was such an amount of decomposed rocks of various kinds that it would have been difficult to satisfy any one not familiar with the drift that here was an equivalent of the northern drift; but there is found at Tijuca the most palpable superposition of drift and of decomposed rock, with a distinct line of demarcation between the two. This locality afforded an opportunity of contrasting the decomposed rocks, which form a characteristic feature of the whole country, with the superincumbent drift, so that hereafter any one may distinguish them, whether found in contact or separately. The decomposed rocks are quite a new feature in the structure of the country, granite, gneiss, mica slate, clay slate, in fact all the various kinds of rocks usually found in metamorphic formations, are reduced to the condition of a soft paste, exhibiting all the mineralogical elements of the rocks as they were before their decomposition; but now completely disintegrated and resting side by side as if accumulated artificially. Through this loose mass there runs here and there larger or smaller dykes of quartz rock, or of granite or other rocks, equally disintegrated; but they retain the arrangement of their materials, showing them to be disintegrated dykes in large disintegrated masses of rock; the whole passing unmistakably to rocks of the same kind in which the decomposition or disintegration is only partial, or no trace of it visible, and the whole mass exhibits then the appearance of an ordinary metamorphic set of rocks. It is plain that such masses, forming everywhere the surface of the country, must be a great obstacle to the

study of the erratic phenomena, and it is not strange that those who seem familiar with the country should entertain the idea that the surface rocks are everywhere decomposed and that there is no erratic formation nor drift here. But upon close examination it is easy to see that while the decomposed rocks consist of the small particles of the primitive rocks, which they represent, with their dykes and all other characteristic features, there is not a trace of larger or smaller boulders in them; while the superincumbent drift, consisting of similar parts, does not show the slightest sign of the indistinct stratification characteristic of the decomposed metamorphic rocks below it, nor any of the decomposed dykes, but is full of various kinds of boulders of different dimensions. The boulders have not yet been traced to their origin; the majority consist of a kind of greenstone, composed of nearly equal amounts of a greenish black hornblende and feldspar; this greenstone is said by mining engineers to be found in Entre Rios, on the Parahyba, where iron mines are worked in a rock like these boulders. Thus far the only evidence furnished of the action of glaciers is the extensive accumulation of drift, similar in its characteristics to northern drift. No trace has been found of glacial action, properly speaking, such as polished surfaces, scratches and furrows.

The decomposition of the surface rocks and the extent to which it takes place in Brazil is very remarkable, and points to a new geological agency, thus far not noticed in our geological theories. It is obvious that the warm rains falling upon the heated soil must have a very powerful action in accumulating the decomposition of rocks; and, as these rains have fallen for ages in succession upon hot stones, instead of wondering at the amount of decomposed rocks, we should rather wonder that there are any rocks left in their primitive condition. All the rocks being, however, encased in a lining of the decomposed part of their surface, they are thus protected by a rotten crust from further decomposition.

As the expedition is almost entirely composed of young men formerly working at the Museum, the force left to carry on our operations at home has been greatly reduced, and consequently less has been done than in former years for the arrangement of the collection; but it is hoped that on the return of the

Brazilian expedition we shall be able to start anew the business of the Museum, and, with the increased materials at our command, insure even more than formerly the good will of kindred institutions.

During the past year the work done at the Museum has been chiefly confined to taking care of the specimens received, and preparing the exchanges, which have now become quite extensive. An examination of the special reports will show how large a proportion of our additions have been derived from this source. The exchanges have been discontinued in some of the departments since the spring, owing to the reduced number of the assistants, and have been almost entirely confined to entomology, conchology, and paleontology. The additional work devolving upon the assistant in charge has made it impossible for him to do anything besides the usual routine work of the Museum. As much work as possible was bestowed upon the dry specimens, owing to the increased cost of alcohol, and the paleontological collection, a great part of which had thus far remained in the original packages, has been made accessible by Mr. N. S. Shaler, and several exchanges have been made in that department. Mr. Uhler has had charge of the articulates and of the library, and is making excellent progress in the entomological department, which under his charge, with the assistance of Miss S. H. Cook, is gradually becoming more and more useful. Owing to Mr. Uhler's absence for several months in Hayti and in Maryland, for the purpose of making collections for our exchanges, rather less time has been devoted than during the past year to the arrangement of the collection. Mr. Anthony, who started with the Thayer expedition, was obliged to return on account of ill health, and, having distributed the material accumulated during his absence, has again taken charge of the mollusca, and begun the exchanges interrupted by his departure for Brazil. Mr. Glen has been in charge of the microscopical department, and has devoted the greater part of his time in making sections of shells and echinoderms. The number of these sections has now become quite extensive, and will form a most valuable addition in the final arrangement of our collections. Mr. Niles has been engaged in the study of the crinoids, and has nearly completed their arrangement, having

passed in review the different collections in possession of the Museum. Messrs. St. John and Hartt were engaged, previous to their departure for Brazil, in working up the collections of fossils they had made in the Western States and in Nova Scotia during the summer of 1864. Mr. Allen was for a time in charge of the birds and mammals, and left the collection in very good order previous to his departure for Brazil.

The remaining departments were left in my charge, but little besides making up a few exchanges, and taking care of the new additions, could be done.

After many unavoidable delays, the first number of the Illustrated Catalogue of the Museum has been published; the Ophiuridæ and Astrophytidæ, by Theodore Lyman. It has been distributed among the scientific societies of this country, as well as to individuals specially interested in those animals. A few copies have also been sent to Europe, and the remainder of the edition will be distributed to foreign societies with the second number, which will shortly be published. Owing, however, to the sudden departure of Mr. Burkhardt, who was engaged in coloring the plates of the first number, the whole edition could not be completed, though a sufficient number of copies were finished to satisfy our immediate wants. The fourth number of the Museum Bulletin, on the Brachiopoda of the Island of Anticosti, by Mr. N. S. Shaler, has also been lately issued. In exchange for these publications, the Museum may hereafter expect valuable additions to its library, by receiving similar publications from other museums and scientific societies, as well as original investigators.

During the first term of the academic year 1864–5, Professor Agassiz delivered the usual course of lectures to members of the scientific school and undergraduates, open also to public teachers. A special course of university lectures on mollusca, was also delivered by him at the Museum. During the second term, the lectures on zoölogy were omitted, but will be delivered during the present term by myself. Three other courses of university lectures were delivered at the Museum, one on the geological succession of the Brachiopoda, by Mr. Shaler, delivered during the last term. During the present term, Mr. Uhler is giving a course of lectures on North American entomology, and Mr. Shaler another on the elevation of

continents. The attendance to these courses has been quite regular, and has shown a marked increase over former courses.

The arrangement of the specimens on exhibition has been slightly changed; to make room for the mounted specimens of mammals and birds sent by the Jardin des Plantes, the fossil reptiles have been removed to the galleries, and their place filled with stuffed specimens. The collection of insects has been packed away, as, owing to their exposure to light, they were rapidly fading, and hereafter only a small typical collection of specimens which can easily be replaced will be left on exhibition. The beginning of an ethnological collection, principally brought together from California and the Cape of Good Hope, has been placed in one of the cases by Mr. Glen, to call attention to this department, which is still in an imperfect condition. It is to be regretted that the number of exhibition rooms is not large enough to enable us to follow the plan originally laid out for the arrangement of the specimens; this must be postponed until additional room is supplied; the Museum thus loses much of its instructiveness, and this defect will become greater each year. The want of room may even compel us to place in the exhibition rooms specimens not properly prepared, simply on account of the accumulations in the work-rooms, which occupy so much of the space needed to take care of and handle new invoices. A general collection, intended for lecturing purposes, has been partially placed in the gallery of the lecture-room.

I would call the attention of the trustees to the unsafe condition of the cellar for storing the alcoholic collections. Owing to its dampness, the kegs in which the great bulk of the collection is packed become unfit for use in about three years. It requires constant watching to renew the leaky ones, and it is impossible to avoid occasional loss of specimens. The earthen jars and copper tanks thus far employed, with which it is intended eventually to replace the kegs, are found to work admirably, but the use of such jars would require a considerable outlay at first, and we are not yet able even to store new additions in them, although in course of time this would be the most economical mode of packing our alcoholic collections.

Not more than twenty-five cans containing alcohol were sent out from the Museum during the past year. Thirty were sent back, leaving about forty-eight individuals to whom cans for collecting have been sent, which they have not yet returned.

The thanks of the Museum are particularly due to the agents of the Pacific Mail Steam-ship Company, to their President, Mr. Allan McLane, to Mr. Hoadley, President of the Panama Railroad Company; to Messrs. Wells, Fargo & Co., Dabney & Cunningham, Samuel Stevens & Co., Henry C. Brooks & Co., James Bishop & Co., Loring & Shute, Burdett & Everett, Rufus Wills & Son, Alpheus Hardy, Isaac Taylor, James M. Barnard, P. L. Everett and George N. Lawrence, who have at various times forwarded, free of expense, extensive invoices of specimens. Captain James Anderson, of the Cunard steamers, has kindly continued to take charge of the packages for our English correspondents. We have to thank, also, the State Department at Washington for the kindness with which packages intended for the consuls of the United States in foreign countries have invariably been distributed.

We are under obligations to the following individuals for their interest in making collections for the Museum:—Messrs. Charles Hale, Henry Edwards; W. H. Dabney and Miss Olivia Dabney, for their continued exertions in our behalf in the Azores; Messrs. A. S. Peabody, Alfred A. Reed, Joseph Heco; Antonia de Lacerda and Mr. Henry Sawyer, for their South American contributions; Theodore Lyman, Thomas Owens, Michael Carroll, Dr. George B. Loring; Messrs. P. Choteau & Co., for assistance and specimens at various times; to Mr. F. C. Hill the Museum is indebted for a valuable series of living turtles from Louisiana; to Dr. Viele, for specimens from Colorado; to William H. Anthon, Jr., for specimens from Batavia. The Smithsonian Institution has made us several invoices of their duplicates of North American specimens. Mr. Leonard has sent us a few slabs of fossil tracks from the Connecticut River Valley. Capt. N. E. Atwood has, during the winter, kindly taken care of the head of the right whale left in Provincetown and superintended its shipment to Cambridge, where it now remains. Mr. Blanford, the Secretary of the Asiatic Society, and Mr. Whitney have laid us under great obligations for their exer-

tions in our behalf, and Dr. Walsh has sent us series of his original specimens.

Notwithstanding the general interest felt in the Museum, and the numerous additions we have received from private individuals, by far the largest additions to our stores have been received as exchanges. These have been continued on the most satisfactory footing with the Jardin des Plantes through Professors Milne Edwards and Duméril, to whom we have continued to send, during the past year, living specimens of our common North American animals. In this I have been greatly assisted by the zeal of Mr. J. G. Rich, of Maine. I have to thank, also, Mr. B. P. Mann, of Concord, and Mr. S. Jillson, of Feltonville, for the many living specimens they have furnished the Museum, as well as Mr. H. K. Moore and Mr. O. St. John. From the University Museum, of Copenhague, through Professor Steenstrup, we have a valuable invoice of cetacean skeletons. From the Museum of Göttingen, through Professor Keferstein, reptiles from Australia. Messrs. E. L. Layard and W. Theobald have sent us valuable exchanges. Through Professors Gegenbaur and Haeckel we have obtained a collection of marine animals from the Mediterranean, German Ocean, and fishes from the Danube and Rhine. We have received Italian fossils for our duplicates from Professor Gastaldi, Messrs. Michelotti and Rigacci. Professor Poey has continued to send us Cuban fishes. Professors Krauss, Merian, Angelin, and Mr. Pickett, have sent us valuable exchanges of fossils. To the Chicago Academy of Natural Sciences we owe an important collection of Northern and Western birds. Mr. Henry Edwards has continued his valuable invoices. Dr. Kaup has sent us an extensive collection of insects in exchange for American species. Besides these more general exchanges, I have to mention those of the special departments with Don Rafael Arango, C. F. Angas, I. A. Lapham, Robert Swift, G. W. Tryon, M. Tervers, Prof. Oppel, Dr. Newcomb, Barrande, and other minor exchanges, amounting, as will be seen by the special reports, to extensive additions.

Among the other additions, I must notice specially a very important collection made at Lake Titicaca and on the coast of Peru by Mr. E. G. Squier; the collections of Nova Scotia fossils by Mr. Hartt, and of Dr. Stimpson on the coast of New Jersey; of Mr. J. M. Nelson in the interior of Newfoundland,

which added several valuable skeletons to our stores; the collections of Mr. C. Cooke, from Zanzibar, which he brought home himself, having been compelled by ill-health to return to this country at the time when his appointment as United States Consul at Mozambique promised to enable him to spend further time in making large collections; a small collection of fossils made along the line of the Hannibal and St. Joseph Railroad, in Missouri, which we owe to the facilities granted by the directors of the company to Messrs. Ward, St. John, and myself. For the other contributions I would refer to the following special reports.

Report on the Vertebrates, by ALEX. AGASSIZ.

During the past year the collection of Birds and Mammals have been in charge of Messrs. Niles and Allen, the latter being engaged in cataloguing and separating duplicates. After his departure for Brazil, nothing has been done in this department except taking care of the new specimens received. Mr. Sceva had been at work during about six months preparing some of our skeletons for exhibition; he was, however, obliged to leave his work unfinished on his departure with the Brazilian expedition. All the mounted specimens received from the Jardin des Plantes have been placed on exhibition in the large cases of the public rooms. Among the most valuable receipts are the numerous specimens of embryos we continue to receive; the collections sent by Mr. Layard; a series of skeletons from Newfoundland, and the invoices of the Smithsonian Institution. The collection of Fishes and of Reptiles has been in charge of Mr. A. Agassiz, but with the exception of a few of our common species sent off in exchange, no time could be devoted to the arrangement or cataloguing of the specimens. The collection of Reptiles has been increased by an unusually large number of original specimens sent by Mr. Layard and Prof. A. Aug. Duméril, Prof. Keferstein and Mr. Theobald, and Mr. Roberts, from Macacos. The Fishes have also received similar additions of identified specimens, sent through Professors Gegenbaur and Haeckel. Among the donations the collections sent from

Shanghai by Captain Breck, and those of Mr. Squier, are specially to be noticed.

Our exchanges have added no less than 1,213 specimens of Fishes, of 178 species; 377 specimens of Reptiles, of 194 species; 660 specimens of Birds, of 579 species; and 150 Mammals, of 94 species; nearly all carefully labelled by reliable authorities.

We have to thank for donations the following persons:—

MAMMALS.

Allen, J. A. 15 specimens, 9 species, Springfield.
Arnold, J. G. Embryos.
Atwood, N. E. 1 Porpoise, Provincetown.
Boardman, George A. 4 specimens, 4 species, Calais, Me.
Bourget, D. 12 specimens, 9 species, Rio Janeiro.
Cabot, J. E. 1 specimen, Brookline.
Davis, G. H. 1 specimen, Rio Janeiro.
Francis, E. 1 horse.
Jillson, S. 29 specimens, 13 species, Feltonville.
Hawksley, W. 1 specimen, Brookline.
Loring, Dr. George B. Embryos.
Mann, B. P. 2 specimens, 2 species, Concord.
Moore, H. K. 2 specimens, 1 species, Malden.
Munn, Hon. John, and Michael Carroll. 1 Embryo, Newfoundland.
Perkins, A. T. 11 specimens, 10 species skulls.
Rice, H. D. 2 dogs.
Roberts, W. M. 7 specimens, 5 species, Brazil.
Russell, Mrs. G. R. Elkhorns, Washington Territory.
Shaler, N. S. 3 specimens, Cambridge.
Smith, S. I. 3 specimens, Norway, Me.
Swift & Co. 1 Fox, Brazil.
Stillman, S. 8 specimens, 5 species, Rome.
Thayer Expedition. 1 keg, Brazil.
Viele, Dr. 1 specimen, Colorado.

BIRDS.

Abbott, C. V. 1 specimen, Boston.
Agassiz, A. 6 specimens, Nahant.
Allen, J. A. 69 specimens, Springfield, Mass.
Boardman, George A. 15 specimens, 13 species, Calais.
Bourget, D. 31 specimens, 15 species, Brazil.

BURRILL, E. 1 specimen, Cambridge.
DAVIS, G. H. 2 specimens, 2 species, Brazil.
FELTON, C. C. 17 specimens, 10 species, Cambridge.
FRANCIS, E. 1 specimen, Cambridge.
JILLSON, S. 25 specimens, 15 species, Feltonville.
MANN, B. P. 55 specimens, 23 species, Concord.
PARKE, G. W. 1 specimen, Cambridge.
ROBERTS, W. M. 3 specimens, 3 species, Brazil.
SHAW, P. 4 specimens, Cambridge.
SMITH, S. I. 29 specimens, 15 species, Norway, Me.
SMITHSONIAN INSTITUTION. 362 specimens, 108 species, various localities.
STILLMAN, S. 62 specimens, 36 species, Rome.
THAYER EXPEDITION. 77 specimens, 30 species, Brazil.
THAXTER, R. 1 specimen, Newtonville.
UHLER, P. R. 3 specimens, 3 species, Maryland.

REPTILES.

ALLEN, J. A. 12 specimens, 7 species, Springfield.
ANTHON, H., Jr. 21 specimens, 14 species, Batavia.
AUSTIN, E. R. 5 specimens, Michigan.
BISHOP, J. & Co. 1 specimen, Pará.
BOARDMAN, B. G. 4 specimens, 4 species, Port Hudson.
BOURGET, D. 6 specimens, 3 species, Brazil.
BROWN, Mrs. 1 specimen, Cuba.
DAVIS, G. N. 7 specimens, 4 species, Brazil.
DOWNES, Mr. 2 specimens, West Indies.
EAMES, W. H. 5 specimens, 2 species, Cambridge.
FOWLER, S. N. 6 specimens, 5 species, South Carolina.
GARDNER, Mrs. F. 1 specimen, Liberia.
GUNNING, W. D. 4 specimens, Michigan.
HARTT, C. F. 7 specimens, 3 species, Nova Scotia.
HEADE, J. M. 7 specimens, 4 species, Brazil.
HILL, F. C. 30 specimens, 5 species, Louisiana.
IVES, R. H. 1 specimen, Georgia.
JILLSON, S. 15 specimens, 11 species, Massachusetts.
MANN, B. P. 75 specimens, 14 species, Concord,
MACKENZIE, M. 8 specimens, 3 species, Boston.
MCARDLE, 1 specimen, Cambridge.
NILES, W. H. 10 specimens, 3 species, Worthington.
ROBBINS, Mr. 2 specimens, Southern Coast.
ROBERTS, W. M. 73 specimens, 8 species, Brazil.
STILLMAN, S. 25 specimens, 13 species, Rome.

TENNEY, S. 1 specimen, Massachusetts.
UHLER, P. R. 2 specimens, 2 species, Maryland.
VIELE, Dr. 9 specimens, 8 species, Colorado.
WILSON, W. W. 2 specimens, Hayti.

FISHES.

AGASSIZ, A. 3 specimens, 3 species, Nahant.
ALLEN, J. A. 6 specimens, 4 species, Springfield.
BOURGET, D. 49 specimen, 15 species, Brazil.
BRECK, Captain. 300 specimens, 35 species, Shanghai.
BROWN, Mrs. 1 specimen, Cuba.
DAVIS, GEORGE H., and J. M. HEADE, 17 specimens, 14 species, Brazil.
HARDY, M. 2 specimens, 1 species, Andover.
HARTT, C. F. 14 specimens, 5 species, Nova Scotia.
HUGHES, GEORGE. 13 specimens, 1 species, Nova Scotia.
HUNNEWELL, J. L. 7 specimens, 1 species, Pará.
LEWIS & KENT. 60 specimens, 16 species, Chatham.
LYMAN, T. 100 specimens, 5 species, Merrimack River.
LOUSADA, Marquis de. 1 specimen, Swampscott.
NEGUS, M. 1 specimen.
REED, A. A. 3 specimens, 1 species, West Greenwich.
ROBERTS, W. M. 30 specimens, 7 species, Brazil.
SHALER, N. S. 1 specimen, Gloucester.
SMITH, S. I. 25 specimens, 2 species, Norway.
SHAW, Q. A. 1 specimen, Detroit.
SQUIER, E. G. 60 specimens, 26 species, Peru,
STILLMAN, S. 60 specimens, 15 species, Ostia.

WITH THE GRAY FUND

There were obtained 975 specimens of 180 species of Fishes; 37 specimens of 15 species of Reptiles; 376 specimens of Birds representing 87 species, and 420 specimens of 40 species of Mammals, from nine different individuals.

Besides the live stock of Birds, Mammals and Reptiles sent to the Jardin des Plantes, 83 specimens, representing 26 species, there were sent 6 collections of Vertebrates to as many institutions and individuals, amounting to 94 specimens and 84 species.

Report on the Articulata, by P. R. UHLER.

INSECTS.

Since the last Report, considerable work has been done in reducing the extensive collections of insects to a state of order and security, as well as in adding series of specimens required for exchange.

Having been sent to Hayti during the spring of the present year, to collect the insects, &c., of the south-west extremity of the island, I was enabled to bring together a pretty fair representation of the fauna of that region. On my return in June, it was thought desirable that I should proceed to Maryland, for the purpose of procuring specimens, to assist in conducting the exchanges during the present autumn. I succeeded in procuring by my own collecting, and by purchase, about 10,000 specimens, many of which were new to the Museum collection.

As fast as received at the Museum, the lots have been assorted into their respective sub-orders, and a series set aside for the faunal and systematic collections. Large numbers of boxes now contain the series so separated for the different collections, and would the space in the Museum permit, hundreds of these boxes could be at once placed on exhibition. Only a few boxes of Australian insects have, accordingly, been placed in one of the cases in the gallery. My absence from the Museum during a considerable part of the year, has prevented the final arrangement and mounting of the remainder of our dried specimens, but some progress has been made, notwithstanding.

The Myriapoda sent to Mr. Wood for determination, have been returned with their names appended.

The exchanges promise to be a fruitful source of enlargement to the collections, and the few returns, thus far made, have added many fine species.

The additions to the collections have not been so great as in 1864; but that extraordinary increase was due to the purchase of several large collections brought together by eminent entomologists.

The whole number of specimens added since the last report is 21,132, embracing 7,464 species. Of this number, 2,870

specimens were presented; 13,773 were purchased with the Gray Fund, and 4,489 received in exchange.

DONATIONS OF INSECTS.

AGASSIZ, A. 7 species, 10 specimens Lepidoptera; 3 species 9 specimens Coleoptera; 6 species, 59 specimens Orthoptera; 1 species, 1 specimen Myriapoda; 1 species, 2 specimens Arachnida, from Cambridge, Mass. Total, 18 species, 81 specimens.

AGASSIZ, L. 1 species, 1 specimen Lepidoptera; 1 species, 1 specimen Orthoptera; 2 species, 2 specimens, Hymenoptera; 5 species, 29 specimens Diptera, from Nahant, Mass. Total, 9 species, 33 specimens.

ALLEN, J. A. 38 species, 125 specimens Lepidoptera; 70 species, 397 specimens Coleoptera; 28 species, 168 specimens, Hymenoptera; 23 species, 101 specimens Diptera; 15 species, 51 specimens Hemiptera; 10 species, 18 specimens Orthoptera; 4 species, 4 specimens Neuroptera; 2 species, 3 specimens Myriapoda; 12 species, 65 specimens Arachnida, from Springfield, Mass. Total, 202 species, 932 specimens.

AUSTIN, E. P. 10 species, 30 specimens Coleoptera; 3 species, 15 specimens Myriapoda, from Oakland, County, Mich. Total, 13 species, 45 specimens.

BAUMHAUER, E., and FISHER, C. 42 species, 72 specimens Coleoptera, from Baltimore, Md.

BERENDT, Dr. C. H. 2 species, 2 specimens Coleoptera, from Tabasco, Mexico.

BOURGET, D. 2 species, 2 specimens Orthoptera, from Rio de Janeiro, Brazil.

BRIDGHAM, Mrs. S. W. 125 species, 232 specimens Lepidoptera, from New York.

BROWN, Mrs. 2 species, 5 specimens Arachnida; 1 species, 2 specimens Scorpions, from Cuba. Total, 3 species, 7 specimens.

CHAMBERLAINE, Mrs. A. P. 8 species, 8 specimens Coleoptera; 6 species, 7 specimens Orthoptera; 1 species, 1 specimen Hemiptera; 2 species, 3 specimens Myriapoda, from Shanghae, China.

CHAVANNES, Dr. A. 65 cocoons of *Saturnia cynthia;* 185 eggs, and 1 cocoon of Saturnia yama-mai, from Lausanne, France.

CHURCHILL, J. R. 1 species, 9 specimens Hemiptera, from Milton, Mass.

CRESSY, Dr. N. 6 species, 17 specimens Coleoptera; 1 species, 1 specimen Orthoptera, from Canaan, N. Y.

DAULTE, F. 1 specimen *Corydalis cornutus*, from Leavenworth, Kansas.

DAVIS, Mrs. G. N. 11 species, 32 specimens Lepidoptera in all stages; 8 species, 20 specimens Orthoptera; 11 species, 13 specimens

Coleoptera; 3 species, 3 specimens Diptera; 2 species, 5 specimens Neuroptera; 3 species, 3 specimens Myriapoda; 2 species, 2 specimens Arachnida, from Rio de Janeiro, Brazil. Total, 40 species, 78 specimens.

FOWLER, Rev. J. H. 11 species, 24 specimens Lepidoptera; 6 species, 6 specimens Coleoptera; 5 species, 8 specimens Hemiptera; 5 species, 7 specimens Orthoptera; 2 species, 3 specimens Hymenoptera; 1 species, 4 specimens Neuroptera; 2 species, 2 specimens Diptera, from Port Royal Island, S. C. Total, 32 species, 54 specimens.

FRANCIS, E. 26 females, and eggs, of *Anisopteryx vernata;* 1 specimen *Cicada canicularis*, from Cambridge, Mass.

HARTT, C. F. 1 species, 1 specimen Myriapoda, from Halifax, N. S.

HAXEL, P. 47 species, 88 specimens Coleoptera; 3 species, 4 specimens Hemiptera, from Quincy, Ill. Total, 50 species, 92 specimens.

HEADE, M. J. 4 species, 10 specimens Hemiptera; 2 species, 3 specimens Hymenoptera; 5 species, 7 specimens Orthoptera; 1 species, 1 specimen Arachnida, from Rio de Janeiro, Brazil. Total, 12 species, 21 specimens.

HILL, President T. 1 imago, and 1 larva of Lepidoptera, from Cambridge, Mass.

HOWELL, R. 1 specimen *Attacus luna;* 1 specimen *Corydalis cornutus*, from Tioga County, N. Y.

HUNNEWELL, J. L. 1 species, 2 specimens Myriapoda, from Para, Brazil.

LANGSTROTH, Rev. L. L. 1 species, 33 specimens Apis, from Oxford, Ohio; and 1 species, 1 specimen Apis, from China.

LECONTE, J. L. 3 specimens *Polyphylla variolosa*, from New Jersey.

LYMAN, T. 5 species, 5 specimens Coleoptera; 1 species, 1 specimen, Orthoptera; 1 species, 1 specimen Hemiptera; 1 pupa of Lepidoptera, from Petersburg, Va. Total, 8 species, 8 specimens.

MANN, B. P. 1 larva of Lepidoptera, from Cambridge, Mass.

MARCY, Prof. O. 3 species, 4 specimens Coleoptera; 1 species, 1 specimen Hymenoptera; 1 species, 1 specimen Diptera, from Evanston, Ill. Total, 5 species, 6 specimens.

MAYER, A. 4 species, 256 specimens Coleoptera; 1 species, 1 specimen Hymenoptera, from Neufchatel, Switzerland.

MCARDLE, P. 5 species, 6 specimens Coleoptera, from Cambridge, Mass.

NILES, W. S. 4 species, 4 specimens Lepidoptera, from Cambridge, Mass.

PUTNAM, W. H. A. 1 specimen *Callidea sexmaculata*, from Batavia, Java.

RICH, J. G. 2 species, 2 specimens Lepidoptera, from Upton, Me.

Roberts, W. M. 4 species, 5 specimens Coleoptera; 2 species, 3 specimens Orthoptera; 4 species, 10 specimens larvæ of Lepidoptera; 1 species, 1 specimen Myriapoda; 2 species, 2 specimens Arachnida, from Macacos, Brazil. Total, 13 species, 21 specimens.

Scudder, S. H. 8 varieties of *Chionobas semidea*, from White Mountains, N. H.

Shaler, N. S. 2 species, 2 specimens Lepidoptera; 1 species, 2 specimens Coleoptera, from Cambridge, Mass.

Shedd, W. B. 3 species, 3 specimens larvæ of Lepidoptera; 1 species, 1 specimen Orthoptera; 1 species, 1 specimen Myriapoda, from Malden, Mass.; 3 species, 33 specimens cocoons of Lepidoptera, from Oberlin, Ohio. Total, 8 species, 38 specimens.

Shute, J. G. 2 nests, with adult and young of Vespa, from Woburn, Mass.; 1 Scorpion, from Arabia; 1 Scorpion, from Southern Europe.

Springfield Museum. 50 species, 430 specimens Coleoptera; 16 species, 87 specimens Hymenoptera; 8 species, 28 specimens Orthoptera; 6 species, 10 specimens Diptera; 8 species, 14 specimens Hemiptera, from Springfield, Mass. Total, 88 species, 569 specimens.

Stillman, S. 1 species, 1 specimen Lepidoptera; 1 species, 1 specimen Coleoptera; 1 species, 1 specimen Orthoptera, from Rome, Italy. Total, 3 species, 3 specimens.

Tyler, J. K. 1 species, 1 specimen Neuroptera, from Boston, Mass.

Viele, Dr. 2 species, 5 specimens Coleoptera; 18 species, 29 specimens Orthoptera, from Colorado Territory. Total, 20 species, 34 specimens.

Walsh, B. D. 3 species, 4 specimens Lepidoptera; 7 species, 8 specimens Hymenoptera, and 12 species, 52 specimens nests of Cynipidæ; 3 species, 4 specimens Lepidoptera; 41 species, 69 specimens Neuroptera; 7 species, 7 specimens Diptera; 9 species, 11 specimens Hemiptera; 5 species, 6 specimens Coleoptera; 4 species, 7 specimens Orthoptera, from Rock Island, Ill. Total, 76 species, 112 specimens.

Wentworth, Jas. 1 specimen *Emesa brevipennis*, from Washington, D. C.

Wild, J. P. 12 species, 24 specimens Coleoptera, from Egg Harbor City, N. J.

Wilson, W. 1 species, 15 specimens Scorpions; 2 species, 3 specimens Arachnida; 1 species, 3 specimens Myriapoda, from Port au Prince, Hayti.

Wright, C. 20 species, 30 specimens Coleoptera; 6 species, 14 specimens Orthoptera; 13 species, 45 specimens Hymenoptera; 8 species, 20 specimens Hemiptera; 13 species, 21 specimens Arachnida, from Washington, D. C.; 5 species, 114 specimens Coleoptera, from Cuba; 15 species, 25 specimens Lepidoptera, from Japan; 2 species, 2

specimens Lepidoptera, from Benin Islands; 2 species, 2 specimens Coleoptera; 1 species, 2 specimens Orthoptera, from China; 22 species 81 specimens Lepidoptera; 3 species, 34 specimens Coleoptera; 1 species, 2 specimens Neuroptera; 2 species, 3 specimens Orthoptera; 1 species, 1 specimen Hymenoptera, from Cuba. Total, 114 species, 396 specimens.

BY EXCHANGE.

Through this source we have added 4,489 specimens of 2,142 species from various parts of the world, obtained through seven different individuals and institutions.

PURCHASED WITH THE GRAY FUND.

By this means we have procured 13,773 specimens of 4,603 species from ten different individuals.

CRUSTACEA.

During the year just passed the additions to the collections, from all sources, have been 199 species, 2,157 specimens. Of this number, 533 specimens, embracing 71 species, were presented; 1,309 specimens, of 96 species, were obtained by the Gray Fund, and 315 specimens, of 32 species, were received in exchange.

PRESENTED.

Allen, J. A. 1 species, 31 specimens, from Wayne County, N. Y.
Bourget, D. 6 species, 10 specimens, from Rio de Janeiro, Brazil.
Breck, Capt. 3 species, 71 specimens, from Shanghai, China.
Brown, R. 1 species, 1 specimen, from Staten Island, N. Y.
Hartt, C. F. 2 species, 60 specimens, from Harborville, Bay of Fundy.
Heade, M. J. 4 species, 7 specimens, from Rio de Janeiro, Brazil.
Lyman, T. 1 species, 1 specimen, from Petersburg, Va.
Roberts, W. M. 4 species, 4 specimens, from Macacos, Brazil.
Squier, E. G. 1 species, 7 specimens, from Peru.
Stillman, Mr. 4 species, 36 specimens, from Rome, Italy.
Theobald, W., Jr. 41 species, 146 specimens, from Rangoon, E. I.
Uhler, P. R. 1 species, 8 specimens, from Baltimore County, Md.
Viele, Dr. 1 species, 150 specimens, from Colorado Territory.
Wilson, W. W. 1 species, 1 specimen, with no locality given.

ANNULATA.

The whole number of specimens added since last Report is 163, embracing 44 species. Of these 12 species, 14 specimens were presented; 8 species, 55 specimens received in exchange; and 24 species, 94 specimens procured with the Gray Fund.

PRESENTED.

AGASSIZ, A. 8 species, 8 specimens, from Nahant, Mass.

HARTT, C. F. 3 species, 5 specimens, from Halifax, N. S.; 1 species, 1 specimen, from Harborville, N. S.

Report on the Collection of Mollusks, by J. G. ANTHONY.

Since our last Report much has been done in the way of increasing the collection of Mollusca, which is now in much better condition than at the same period last year. My absence from the country, however, with the expedition to Brazil, has prevented a considerable amount of work being done in mounting and arranging the collection; but this is less to be regretted at this time, since the cramped condition in which we find ourselves, for want of room to exhibit the specimens after being mounted, would have compelled the retention of the greater portion of them in the work-rooms, where they would not be seen by visitors to the Museum. The only important work done in this line since our last Report, has been the mounting of all our cypreæ and ovulæ, for which room was made in one of the cases in the exhibition rooms by displacing specimens already there, and they are now on exhibition, forming an interesting addition to our mounted specimens.

During the current year, the cabinet of shells belonging to Mr. Anthony, alluded to in our last year's Report, has been purchased, and is now in process of preparation, for being duly handed over to the Museum. The main collection has long been arranged, and would require but little labor before being ready for exhibition; but the large number of duplicates require, and are now undergoing, a thorough examination, in order to render them available in our foreign exchanges, where they will be particularly serviceable. The purchase of this collection will add about 5,000 species of terrestrial and fluvia-

tile shells to our collection, and but few of them will duplicate those previously in our possession.

Our other receipts have been unusually large during the current year, amounting, in the aggregate, to 2,616 species and 34,145 specimens; a number greater than ever before in any one year. Of these, 1,642 species and 13,297 specimens have been derived from our exchanges, and 748 species, 12,814 specimens have been added by donation, while only 226 species, comprising 8,034 specimens, have been acquired by purchase, a much smaller number from this source than usual.

Of the above, we note the following as having been received by donation from many friends of the Museum, and to whom our thanks are due for their valuable contributions.

DONATIONS OF MOLLUSCA.

J. A. Allen, 20 species, 120 specimens.
Alexander Agassiz, 16 species, 421 specimens.
J. G. Anthony, 49 species, 120 specimens.
Captain Breck, 1 species, 1 specimen.
Captain Boutelle, 1 species, 1 specimen.
Professor Bache, 2 species, 2 specimens.
D. Bourget, 2 species, 6 specimens.
Mrs. A. P. Chamberlain, (odd valves,) — specimens.
Miss C. Dabney, 5 species, 10 specimens.
G. N. Davis, 2 species, 3 specimens.
Mrs. J. M. Forbes, 1 species, 23 specimens.
Captain Hamilton, 6 species, 25 specimens.
Edward Habich, 3 species, 5 specimens.
C. F. Hart, 21 species, 2,554 specimens.
Loveland & Thaxter, 5 species, 55 specimens.
Captain Marston, 1 species, 1 specimen.
B. P. Mann, 5 species, 72 specimens.
Captain Putnam, 1 species, 2 specimens.
O. H. St. John, 1 species, 323 specimens.
S. Stillman, 16 species, 37 specimens.
Charles Wright, 477 species, 5,712 specimens.
Thayer's Brazilian Expedition, 113 species, 3,321 specimens.

Among these contributions, that of Mr. Charles Wright deserves particular notice, being not only large in the number of species and specimens, but valuable in other respects, and

adding very materially to our collection, in some genera in which we have hitherto been very deficient.

The Brazilian Expedition, so liberally provided for by one of our most constant benefactors, was naturally looked to as promising a large increase in this department, and I accompanied it with direct reference to a full collection of the mollusca in that region. A severe illness compelled my return at a time when my labors had scarcely commenced. A good collection of land and marine shells had been made, however, and a portion of the land shells were brought home, and enter into this Report; but all the marine shells and alcoholic specimens generally, were left for future shipment. The other members of the Expedition will not neglect the mollusca among the varied objects of their research, and we may still hope to receive a large accession from this source.

About the usual number of packages have been sent away during the current year, but much remains to be done in this line, to repay those who have so liberally furnished specimens. The consignments amount to 1,863 species and 3,781 specimens.

Report on the Radiates, by ALEXANDER AGASSIZ.

The additions to this part of the collection have not been numerous, as the collectors to whom we formerly owed the principal part of our additions have either returned home, or we have been obliged to discontinue their services for want of means. Owing to other more pressing duties in the Museum, but little work has been done in any of the classes. The general arrangement is, however, so far completed for the Radiates that this part of the collection is still in advance of nearly every other department. Mr. Niles has, during the past year, continued to give his attention to the arrangement of the collection of Crinoids purchased last year, which, when it becomes incorporated with the collection of Crinoids already in the Museum, will make it one of the most complete in the Museum. Among the additions I have to notice specially the collection sent by Professor Haeckel, in exchange, containing quite a number of animals usually considered too perishable to be sent any

distance, the greater part of which arrived in a perfect state of preservation.

Besides the donations enumerated below, the Museum has received by exchange 110 specimens of Echinoderms, representing 14 species; 121 specimens of Acalephs, 9 species; and 7 specimens, containing 2 species of Polyps, from three different persons or institutions. Among the collections purchased with the Gray Fund there were 55 specimens of Echinoderms, representing 16 species; 8 specimens of one species of Acaleph, and 25 specimens of 7 species of Polyps, obtained from three different individuals.

Seven collections of Radiates, principally recent and fossil Echinoderms, have been sent from the Museum to as many different institutions and individuals, amounting to 457 specimens, representing 388 species.

DONATIONS OF ECHINODERMS.

AGASSIZ, A. 20 specimens, 2 species. Nahant.
BOURGET, D. 14 specimens, 3 species. Rio Janeiro.
FLETCHER, J. C. 2 specimens, 2 species. Brazil.
HARTT, C. F. 60 specimens, 3 species. Halifax.
SQUIER, E. G. 6 specimens, 3 species. Peru.
STILLMAN, S. 15 specimens, 3 species. Ostia.
TALLANT, Miss. 2 specimens, 2 specimens. Feejee Islands.

ACALEPHS.

AGASSIZ, A. 1 specimen. Newport.
BROWN, R. 2 specimens. Staten Island, N. Y.
HARTT, C. F. 1 specimen. Halifax.
GARDNER, GEORGE. 1 specimen. Sooloo Sea.

POLYPS.

BOURGET, D. 1 specimen. Rio Janeiro.
RUSSELL, J. 5 specimens, 4 species. Manilla.
STILLMAN, S. 4 specimens, 2 species. Ostia.

Report on the Paleontological Collection, by N. S. SHALER.

The greater portion of the work done consisted in the distribution of the stores of materials, conformably to the plan which had been adopted for the arrangement of the Museum. The paleontological collection had been increasing for many years with great rapidity, without having been under the charge of any one person who could be held responsible for its condition. This resulted in much disorder in some portions of the collection, and, as a whole, it presented an unfavorable contrast with the other departments of the Museum. Much time has been given to the labor of overhauling, distributing and labelling specimens, and though a good deal remains to be done, we have advanced so far that little time will be required to complete this merely preliminary work. Besides this task of bringing the collections into a condition in which they can remain without danger until needed for scientific work, considerable progress has been made, in a general way, towards the reduction of the materials to the shape in which it is meant they shall finally be brought. The specimens have all been divided according to geological periods, and, in many cases, those of known fossil faunæ have likewise been separated, according to such natural divisions. No great effort has yet been made to carry our zoölogical division below the limits of orders, yet in many cases the minor groups have been tolerably well determined.

In accordance with the spirit of the whole work of the Museum, all other considerations have been sacrificed to the most important points of securing an accurate determination of the locality of each specimen, and in the arrangement of specimens to exhibit the phenomena of association as they occur in nature.

The work of cataloguing has been carried forward as rapidly as time would admit. In the Brachiopoda, where most of this work has been done, about 7,000 entries have been made, including about 65,000 specimens.

This concludes the list of Paleozoic forms which were in the Museum on the first of January, 1865, as well as all the Terebratulæ from the Jurassic beds. Catalogues of the Paleozoic Gasteropoda and Lamillibranchiata have been commenced, and with the aid of Mr. C. F. Hartt have been carried up to several

hundred numbers. A complete and valuable catalogue of the Cephalopoda, now on exhibition, embracing 1,600 entries, has been prepared by Mr. Hyatt. It is confidently hoped that the coming year will complete the catalogues now under way, as well as lay the foundations of similar work in other groups.

The Brachiopoda collected by the Anticosti expedition in 1861, have been published in the fourth number of the Bulletin, which has recently been issued. Thirty-five species are therein mentioned, including descriptions of twenty-four species not hitherto noticed. An account of the other species of fossils collected by that expedition will be given in future numbers of the Bulletin, which will render a large amount of valuable material available for exchange.

During the year, twenty-four exchanges, varying in number from fifteen to five hundred species, and comprising a total of 1,248 species, and 3,059 specimens, have been prepared for transmission to various correspondents. In return, we have received from nine individuals and institutions 848 species, including 3,880 specimens. Many of these forms have peculiar value, either from being typical specimens with original labels, or as coming from localities of special importance. The past year having been the first in which exchanges of fossils have been made, the number of shipments necessarily bears a large proportion to our returns. Nevertheless, the receipts from this source are sufficiently numerous and valuable to show how effective a means of increasing our collections it can be.

The most valuable single addition to stores was the collection of American Paleozoic fossils of the Rev. W. H. Barris, of Burlington, Iowa, presented by Mrs. G. R. Russell, which increased our collection of crinoids about 400 species, including over 3,000 specimens, and gave us from many portions of our American Paleozoic beds much valuable material for faunal collections and for exchange. The total number of specimens received by purchase amounted to 15,805, including 922 species. From donations, our receipts have not been very numerous, but of considerable value. A collection of over 100 species of selected fossils from the Silurian basin of Cincinnati, including about 1,000 specimens, was received from the assistant in charge of the department. Messrs. A. Agassiz, St. John and Ward

presented a valuable collection of carboniferous fossils from Missouri.

A detailed list of the persons to whom the acknowledgment of the obligation of the Museum is due, will be found at the end of this Report.

The total of species received amounts to 1,969, including 22,634 specimens.

Diligent effort is now making to carry further the systematic arrangement of the collection, and to advance the work of cataloguing and numbering the specimens, so that they will be readily accessible, and can be freely used for purposes of study and comparison. At the same time, the extension of our system of exchanges, which has already given such assurance of success, will remain a prominent aim in our labor.

DONATIONS OF FOSSILS.

ANTHONY, J. G., Assistant M. C. Z. 9 species, 160 specimens.

AGASSIZ, A., ST. JOHN, O. H., and THOS. WARD. 71 species, 1,469 specimens.

CORRY, O. W. 10 species, 19 specimens, Crawfordsville, Ind.

CRAVEN, J. S. Surgeon U. S. A. 1 species, 1 specimen, Fortress Monroe.

DODGE, Major, U. S. A. 2 species, 3 specimens, Petersburg, Va.

SCHAFFER, J. 6 species, 100 specimens, Cincinnati, Ohio.

SHUTE, JAMES. 1 specimen, 1 species, Collingwood, C. W.

SHALER, N. B., M. D. 1 specimen, 1 species.

SHALER, N. S., Assistant M. C. Z. 2 species, 7 specimens, New Jersey.

SHALER, N. S., Assistant M. C. Z. 104 species, 1,337 specimens.

Report on the Library, by P. R. UHLER.

The increase of the Library during the year just passed has not been very considerable, but the additions have not been the less interesting.

Twenty-five volumes, and forty pamplets, or parts, of various sizes, have been presented by the following societies and individuals: Boston Society of Natural History, Entomological Society of Stettin, Essex Institute, Görlitz Natural History Society, Imperial Museum, Paris; Natural History Society of

New Brunswick; Nürnberg Natural History Society; Palermo Natural History Society; Smithsonian Institution; Mr. A. Agassiz, Prof. L. Agassiz, Prof. G. J. Allman, Mr. J. Barrande, Dr. V. Bergsœ, Mr. E. Billings, Mr. R. B. Minturn, Prof. F. Poey, Dr. M. A. F. Prestel, Messrs. F. W. Putnam, and A. S. Packard, S. H. Scudder, Q. A. Shaw. Five volumes have been purchased from the Entomological Society of Philadelphia, and a map of Wisconsin was presented by Mr. I. A. Lapham.

[B.]

TRUSTEES OF THE MUSEUM OF COMPARATIVE ZOÖLOGY.

1866.

THE GOVERNOR OF THE COMMONWEALTH,
ALEXANDER H. BULLOCK.

THE LIEUTENANT-GOVERNOR,
WILLIAM CLAFLIN.

THE PRESIDENT OF THE SENATE,
JOSEPH A. POND.

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES,
JAMES M. STONE.

THE SECRETARY OF THE BOARD OF EDUCATION,
JOSEPH WHITE.

THE CHIEF JUSTICE OF THE SUPREME JUDICIAL COURT,
GEORGE T. BIGELOW.

LOUIS AGASSIZ. WILLIAM GRAY.

JACOB BIGELOW. NATHANIEL THAYER.
JAMES WALKER. SAMUEL HOOPER.
GEORGE TICKNOR. JAMES LAWRENCE.
THEODORE LYMAN.

OFFICERS OF THE MUSEUM OF COMPARATIVE ZOÖLOGY FOR 1866.

His Excellency ALEXANDER H. BULLOCK, Governor of the Commonwealth, *President.*

WILLIAM GRAY, *Secretary.*

THEODORE LYMAN, *Treasurer.*

LOUIS AGASSIZ, *Director of the Museum.*

SAMUEL HOOPER, JOSEPH WHITE, NATHANIEL THAYER, JAMES LAWRENCE, *Committee on Finance.*

GEORGE TICKNOR, LOUIS AGASSIZ, JACOB BIGELOW, GEORGE T. BIGELOW, *Committee on the Museum.*

C. S. Bate, Esq.
London.
England.

From M. C. Z.