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OF THE

Museum of Comparative Zoology



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CAMBRIDGE, MASS.

REPORT

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MUS. COMP. ZOOLOGY,
CAMBRIDGE, MASS.

COMMITTEE OF THE OVERSEERS

OF

HARVARD COLLEGE

APPOINTED TO VISIT

THE LAWRENCE SCIENTIFIC SCHOOL

DURING THE YEAR 1860;

TOGETHER WITH

THE REPORTS SUBMITTED BY THE PROFESSORS.

SUBMITTED FEBRUARY 21, 1861.

CAMBRIDGE:
WELCH, BIGELOW, AND COMPANY,
University Press.

1873.

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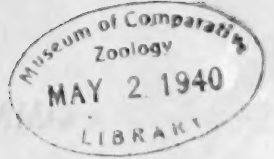
Early Report of Museum Committee
Zoology. 1859-1861.

MUS. COMP. ZOOLOGY
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REPORT
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CAMBRIDGE MASS.

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(Duplicate room)



IN BOARD OF OVERSEERS OF HARVARD COLLEGE,
February 21, 1861.

ORDERED, that the Report of the Committee appointed to visit the Lawrence Scientific School be accepted; and that the same, together with the Reports submitted to the said Committee by the Professors, be printed for the use of the Board.

Attest,

NATHANIEL B. SHURTLEFF,

SECRETARY.

COMMITTEE FOR VISITING THE LAWRENCE
SCIENTIFIC SCHOOL.

WINSLOW LEWIS, M. D.
HON. EMORY WASHBURN, LL. D.
NATHANIEL B. SHURTLEFF, M. D.
HON. JOHN H. CLIFFORD, LL. D.
JACOB BIGELOW, LL. D.
JAMES HAYWARD, Esq.
JOHN M. FESSENDEN, Esq.
AUGUSTUS A. GOULD, M. D.

DANIEL TREADWELL, Esq.
WILLIAM W. GREENOUGH, Esq.
JAMES LAWRENCE, Esq.
EZRA LINCOLN, Esq.
CAPT. B. S. ALEXANDER, U. S. A
GEORGE H. GAY, M. D.
SAMUEL CABOT JR., M. D.
JAMES B. WELLMAN, M. D.

REPORT.

AT an adjourned meeting of the BOARD OF OVERSEERS OF HARVARD COLLEGE, held in the Senate Chamber, in Boston, on the 21st day of February, 1861, His Excellency the Governor of the Commonwealth presiding, the following Report was submitted by WINSLOW LEWIS, M. D., Chairman of the Committee appointed to visit the Lawrence Scientific School, appertaining to the University.

SENATE CHAMBER, February 21, 1861.

THE various departments of the Lawrence Scientific School were visited by ten of the Committee, and the accompanying documents of the several Professors show the prosperous condition of all.

Of these Reports, the most important is certainly that of Professor Agassiz, as it refers at some length to a subject, not merely of University, but of State, of national interest. It will be readily understood that the Committee allude to the new Museum of Comparative Zoölogy.

Previous to considering the reference to that topic, however, there are some minor points in the Report of Professor Agassiz, by no means unworthy of attention. And first, the Committee emphatically indorse the learned Professor's opinion as to the importance of the student of nature cultivating the habit and power of *observation*. No one who has had any experience in University and public teaching, whether in the departments of anatomy, surgery, and medicine, or in others, can have failed to

observe, with anxious regret, the tendency on the part of too many students to rest contented with the knowledge to be gained from books and from lectures, untested and unaided by their own practical experiments and observations. Such a course of study may make what is (erroneously in our opinion) sometimes called a "learned man," but it will never make a really able and useful one, — it will never make a good surgeon, a good anatomist, or a great naturalist, or, in the proper sense, a good scholar. The course of instruction wisely adopted by Professor Agassiz must in a manner force the students to investigate and observe for themselves, and the result is sure to be most wholesome and beneficial, both to them and to the cause of science and sound education. The plan adopted by the Professor of giving a distinct course of instruction to each of the special students, and thereby training them to take charge severally of distinct departments of the Museum, is calculated to promote the progress of that Institution, and of the studies for whose advancement it has been established; but it must have involved an amount of labor on the part of the instructor which increases in no slight degree the obligations he has conferred upon the cause of scientific education.

It must be deemed a just subject of congratulation, both by the Committee and by the public at large, that so great a desire has been exhibited on the part of teachers to avail themselves of the opportunity afforded them, of attending the lectures upon Geology and Zoölogy, delivered in the Museum by Professor Agassiz. From his report, we learn that upwards of two hundred persons have attended these lectures, and that more than half of that number were teachers. Such a fact affords much encouragement to all who have assisted in the establishment of the Museum, and indeed to all who are impressed with the value and importance of the study of Natural History and the cognate sciences.

And this leads the Committee naturally to touch upon the most important part of the Professor's Report, for certainly few will be found to deny that the institution of the noble Museum

of Comparative Zoölogy, which was inaugurated under such happy and favorable auspices, a short time since, is a fact of great public interest and importance. It indicates at all events that a very considerable number of the masters of science and leaders of thought, as well as statesmen, politicians, and merchants, had become sufficiently convinced of the value of the natural sciences, as a part of public education, to induce them to combine heartily and energetically in a strong, united effort to establish this admirable institution on a firm and solid foundation, and then to give a fair and favorable start to its career of practical usefulness. While, however, this degree of enlightenment and proper appreciation of the study of the works of nature has thus been exhibited by the promoters of the new Museum, it is to be feared that the public at large are not so sensible of the advantages of such an institution, or of the studies of which it forms the school; and yet, whether we consider education from a national or an individual point of view, these studies will be found worthy of the deepest admiration and respect. To say that their cultivation is eminently calculated to promote the prosperity and wealth and progress of our common country, would be but the repetition of a truism; for it has been frequently and convincingly demonstrated, that trade, manufactures, and, above all, agriculture can only be fairly and fully developed by the application of principles and practice derived from the study of the natural sciences. Some may be inclined to think that this remark, however true in reference to chemistry and perhaps geology, cannot justly apply to zoölogy. A very little reflection, however, will suffice to dispel this illusion.

To understand the constitution and habits, even of the common domestic animals of the farm, so as to be able to raise the best stock in the most economical way; to feed our horses, our cows, our sheep, in the most profitable and judicious manner; to preserve them in health, or to cure them when suffering from disease, — we are bound to make ourselves acquainted with the principles of zoölogy. Many of the class called “practical

farmers" may probably laugh at such an idea as ridiculous, and point to their own success as a refutation of the theory. If, however, the many mistakes committed by them, even in the matter of treatment and training of animals, and the losses arising from these mistakes, could be accurately tabled, even they might be inclined to alter their opinion. But there are many other points in which profit, pecuniary profit, may be derived by the agriculturist from a sound knowledge of zoölogy. For instance, a knowledge of the structure and habits of fish will show us how to protect them from being taken by improper means and at wrong seasons; and also how to stock our rivers and lakes with species adapted to them, with as much profit and advantage as we now stock our farms with cattle.

The study of birds and reptiles has even already corrected many erroneous ideas, formerly very prevalent among practical farmers. We now recognize several of these as friends instead of foes to our gardens, orchards, and cornfields. By his services in destroying more insidious, and therefore more injurious plunderers, the crow makes a rich and grateful return for the few grains of wheat with which he regales himself at our expense. It is only, in fact, by gaining a thorough knowledge of bird and beast, insect and "creeping thing," that we can learn which are useful and which injurious, and how we shall encourage and protect the one, and drive away or destroy the other. Even the money value dependent upon such knowledge as this would amount to an enormous sum a year, in this our State of Massachusetts alone! How vast must be its amount in the wide area of these United States!

Entomology, or the study of insects, is a branch of zoölogy which has probably been regarded by "practical men" with more disregard, and even contempt, than any other, and yet how unwise and unjust must such a feeling appear, even in a commercial point of view, if we reflect either upon the productive energy and power of some, or the destructive energy and power of other numerous classes of insects. Many millions of dollars are repre-

sented by the honey, the nutgalls, the cochineal, and the silk created annually by the former. Many of the comforts and necessaries of our daily life are dependent upon the labors of this despised insect portion of the earth's population; nor can it be doubted that increased scientific knowledge of this important branch of zoölogy will tend to increase, and therefore to cheapen, these insect manufactures, and to discover others of equal value and utility. And, glancing for a moment at the destructive species, it has already been demonstrated that the loss sustained in certain seasons by our crops from the ravages of insects has been of so serious an amount as to cast a shade for the time over the whole aspect of agricultural and commercial operations. In one Report, issued a few years since, the total amount of this loss was estimated at upwards of twenty millions of dollars in the year! In this view alone, then, the general study of natural history might save us from an annual loss of many millions; for it alone can teach us how to discover and drag forth and destroy these insidious and deadly enemies of agriculture, — these plunderers and destroyers of our very "staff of life."

It is not very unusual to hear the complaint made, that farming is falling into disrepute and is going out of fashion, — that, nowadays, the sons of our farmers all aspire to enter trade, or commerce, or the professions; nor is that complaint by any means groundless. But the grumbling and complaining of "practical old-school men" will not remedy the evil. We live in what is, essentially, an intellectual age, and, in our country more especially, what may be called intellectual ambition exercises an overpowering influence over the minds of our young men. They will not, as a body, be content to plod on in a life of labor, which they are led to believe requires only mechanical and manual labor to command success. They feel the stirring of the intellect within them, and they will seek a fitting field for its exercise. Let them learn that agriculture, even, to be successfully and profitably carried on, not only gives free scope for, but *imperatively demands*, the application of the principles and practice of science; that

“agriculture is, in fact, Natural History applied”; and that, in proportion as it rests upon the basis of natural science, will be its honor and success; and we may hope to see the farmer’s life of labor speedily regain its rightful position in the estimation of the youth of our country. In proportion as it has disdained and rejected the aid of science, agriculture has descended in the scale of public esteem; and in proportion as it shall retrace these false steps, and recognize the truth that intellectual science must go hand in hand with industrial skill, may it hope to regain that place of honor which it justly held two thousand years ago, when the most illustrious of Roman poets, and the greatest of Roman orators, considered it an honor to themselves, and a duty to their country, to sing its praises, and to record the benefits and blessings derived from its cultivation by the learned and the noble of their age!

The Committee have dwelt upon this point of the pecuniary profit to be derived from the study of Zoölogy at the greater length, because in this practical, money-making age, a considerable number of our citizens will naturally, and almost unintentionally, estimate the value of educational and other institutions by the “dollar” test; and thus, adopting their own standard, it must be plain to every reflecting mind, that the establishment of this new Museum of Zoölogy, with its educational machinery, framed and directed by the experience and judgment of the illustrious naturalist who presides over it, is unquestionably calculated to develop the commercial and agricultural resources of our country, and thereby add to its wealth and prosperity.

But important as this may be in itself, it would still be but a narrow and mean basis on which alone to rest and advocate the study of Natural History, and, as one of its most valuable departments, Comparative Zoölogy. It has long been one of the great problems of education to discover a study which might draw the imagination from its inward reveries to outward observation, and centre it upon objects that should excite its admiration and awaken its curiosity, without wearying the brain

or agitating the heart. This problem is to a great extent solved by Natural History. It has been well observed by an eminent living writer, that "the earnest naturalist is pretty certain to have obtained that great need of all men, to get rid of *self*. He who, after the hours of business, finds himself with a mind relaxed and wearied, will not be tempted to sit at home, dreaming over impossible scenes of pleasure, or to go for amusement to haunts of coarse excitement, if he have in every hedge-bank, and woodland, and running stream, in every bird among the boughs, and every cloud above his head, stores of interest which will enable him to forget awhile himself, and man, and all the cares, even all the hopes of human life, and to be alone with the inexhaustible beauty and glory of Nature, and of God who made her."

It is indeed of the utmost importance to young minds to be trained in a study which not only tends to draw them out of *self* and selfishness, but is free from the disturbing influences of all party, political, and personal feeling; in which they can look, undisturbed by any of those external distracting influences, at facts exactly as they are, and arrive by patient investigation at candid and correct conclusions. This recommendation powerfully applies to the study of Natural History, and the new Museum of Comparative Zoölogy will most powerfully assist in developing and promoting that study.

To the Legislature, Executive, and public and private benefactors who have, by the influence of position, the contribution of wealth, or the no less valuable contribution of scientific guidance and labor, assisted in the founding and forming of this great Normal School of Natural Science, the present and the rising generation owe a deep debt of gratitude, for it promises to be, or rather it already *is*, a scientific treasury, from which the teacher and divine may draw illustrations of beauty and of power, illustrating the *word* by the *work of God*; and in which the retiring student and the energetic son of labor may, side by side, gain a knowledge that shall promote the practical objects of the one,

and elevate and enlighten the hearts and intellects of both; and when a future generation shall appreciate at its true worth this study of Natural History, then will the founders of the new Museum be gratefully and reverentially ranked among the best and wisest benefactors of their fatherland.

Respectfully submitted,

WINSLOW LEWIS, *Chairman.*

REPORT OF PROFESSOR AGASSIZ ON THE DEPARTMENT
OF ZOÖLOGY AND GEOLOGY.

TO THE REVEREND AND HONORABLE, THE COMMITTEE FOR THE EXAMINATION OF THE LAWRENCE SCIENTIFIC SCHOOL, THE FOLLOWING REPORT IS RESPECTFULLY SUBMITTED BY THE UNDERSIGNED.

During the past year twelve special students, besides two graduates, have attended the private instruction given in the Zoölogical department of the School. As usual, the instruction has consisted in special lectures upon particular topics relating to the subjects upon which the students were making investigations, and in directing these investigations. Confident that a student of nature must above all learn how to observe, I have not deviated from the plan adopted in former years of teaching without text-books, leaving the students to find for themselves what is characteristic in the objects brought to their notice; and, that they should not copy each other's work, I have followed a distinct course for each of them; thus, in fact, giving as many separate courses as there are students in the laboratory. But while this method has greatly increased my own labor, I have derived a real advantage from it, for the Museum, in educating special assistants for each of its departments.

The instruction is now given in the new Museum, where every

facility can be afforded to the students for their advancement. The appointment of Mr. H. J. Clark, as assistant professor, will no doubt also add greatly to the advantages afforded to our young naturalists for their special studies.

In connection with this special instruction, I have delivered two courses of public lectures; one upon Zoölogy, the other upon Geology. The second course has been attended not only by students of the Scientific School and of the Senior Class, but also by a considerable number of teachers of the public schools of this vicinity; the number of persons present amounting to nearly two hundred, over one half of which were teachers. This unexpectedly large attendance is an evidence that the privilege granted to the teachers of attending the lectures in the Museum, free of any charge, has been welcome, and is certainly improved.

Since the Professor of Zoölogy in the Lawrence Scientific School is *ex officio* Curator of the Museum of Comparative Zoology, it seems appropriate that I should avail myself of this opportunity to state that the movement organized by your Committee, two years ago, when Governor Clifford was its Chairman, has resulted in the organization of a distinct establishment, with a special Board of Trustees, under the direction of which a new building has been erected, in which all the Zoölogical collections of the University are now safely stored, and about one half of them systematically arranged and exhibited. Through the generosity of a large number of citizens of Boston, and the liberality of the State, a fund has been raised, which, combined with the income of the Gray fund, has placed the Museum upon a permanently secure foundation. A few months ago it was inaugurated, and is now daily open to the public, from 11 o'clock, A. M. to 4 P. M., Sundays and Mondays excepted; and the great number of visitors availing themselves of the instruction offered them in that way seems to justify the hope that it may largely contribute to render the study of Natural History popular among us.

L. AGASSIZ.

Dear Sir,

I have the honor to acknowledge the receipt of your letter of the 10th inst.

and in reply to inform you that the same has been forwarded to the proper authorities.

I am, Sir, very respectfully,
Your obedient servant,

J. H. [Name]

[Address]

[City]

[State]

[Country]

REPORT

OF
THE TRUSTEES

THE TRUSTEES

OF THE

MUSEUM OF COMPARATIVE ZOÖLOGY.

1861.

CAMBRIDGE:

WELCH, BIGELOW, AND COMPANY.

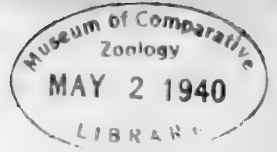
University Press.

1873.

1st ed. 1861

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Commonwealth of Massachusetts.

BOSTON, February 5, 1861.

To the Honorable the Senate and the House of Representatives:—

At the Annual Meeting of the Trustees of the Museum of Comparative Zoölogy, January 30, 1861, it was

Voted, That the Secretary be instructed to prepare a Report, on behalf and in the name of the Trustees, giving full information as to the Museum, with copies of all important documents in regard to its history, and present the same to the legislature.

In compliance with this instruction, the undersigned respectfully submits the following Report:—

The first meeting of the Trustees was held April 30, 1859, when the Act of incorporation was accepted, and a code of by-laws adopted.

A Committee was then appointed to confer with the President and Fellows of Harvard College, who owned a large collection of objects of Natural History, and who held a fund of fifty thousand dollars, given to them in compliance with the request, and from the estate of Francis C. Gray, to establish and maintain a Museum of Comparative Zoölogy.

At the same meeting, a subscription of private individuals, amounting to seventy-one thousand one hundred and twenty-five dollars was transferred to the Trustees, for the erection of a fire-proof building in Cambridge, and for such other purposes as would best promote the study and advancement of the science which this collection was intended to teach and illustrate.

At a meeting of the Trustees, June 1, 1859, Articles of Agreement with Harvard College, reported by the Committee of Conference, were adopted. Under these Articles, and a deed of conveyance by the corporation, the Trustees became the owners of a tract of land formerly the property of the College, and their interest in the collection, to be held on certain trusts, and to be managed in conformity with the provisions contained in the Articles.

The Lawrence Professor of Zoölogy in the Scientific School was made the Curator and scientific head of the Museum, subject to the control of the Faculty of the Museum; and the general management of the institution for the purposes of instruction was vested in such Faculty; the Corporation of the College, and the Trustees of the Museum, reserving the general supervision.

The Director of the Museum, appointed by the Trustees, is to make arrangements, under the supervision of the same Faculty, to secure to the public the freest enjoyment of, and access to, the Museum, consistent with its use for scientific and educational purposes.

The Curator is required to give lectures and instruction to regular classes of students under his care, to classes of teachers of the public schools, and to classes of pupils in the Normal Schools in the Commonwealth, for which he receives no other compensation than his salary as Professor of the Lawrence Scientific School.

The pamphlet annexed, marked A, printed by order of the Trustees, contains the Act incorporating this Board, the Act in aid of the Museum, By-Laws, Articles of Agreement with Harvard College and deed of land, terms of the Gray donation, and Constitution of the Faculty of the Museum, and the private subscription, with the names of the contributors.

Professor Agassiz, on November 10, 1859, presented to the Trustees the collection made by him since the year 1852, and any claim which he might have for his care and expenses in preserving the earlier collection. He had then expended, from

his own funds, more than ten thousand dollars in making and preserving these collections. The letter making this donation was referred to a committee, who, January 25, 1860, reported the form of a letter to Professor Agassiz, which was signed by the members of the Board individually, and transmitted to him by the President. Copies of the letters, with the report of the Committee, are annexed, marked B.

On January 25, 1860, Professor Agassiz submitted his first Annual Report, which is annexed, marked C.

The Trustees, on October 31, 1860, received a communication from the Faculty, that one thousand dollars a year, for three years, had been offered to them to form a part of the salary of an agent of the Museum, provided five hundred dollars annually, for the same term, were added, and Alexander Agassiz appointed. This Board placed the requisite amount at the disposal of the Faculty, with an express declaration that no agent or officer of this corporation is authorized to incur any debt.

The Committee on the Museum made a report on October 31, 1860, which is annexed, marked D.

On November 13, 1860, the inauguration of the Museum took place in Cambridge. The Trustees, with their invited guests, proceeded to the First Church, where prayer was offered by the Rev. Dr. Walker, and addresses were made by Dr. Jacob Bigelow, chairman of the Building Committee, President Felton, Professor Agassiz, and Governor Banks.

On January 30, 1861, Professor Agassiz submitted his Second Annual Report, which is annexed, marked E. The annexed paper, marked F, contains the names of the trustees, officers, and members of the standing committees for the year 1861.

The last Annual Report of Professor Agassiz shows that an average of one hundred and twenty teachers of the State, of both sexes, has been present at the course of lectures on Geology, just concluded.

It appears by the first Resolve annexed to the report of the Committee on the Museum, marked D, passed October 31, 1860,

“that no further appropriation whatever, on account of the Museum, can be made by this Board until November 1, 1861.”

The property and resources of the Museum are:—

1. Land and building in Cambridge.
2. Collections.
3. State grant, \$100,000, no part of which has yet been received.
4. Annual income of the Gray Fund of \$50,000, held by Harvard College.

The Trustees have unanimously resolved to incur no debt, and the Preamble and Resolution adopted with the Report, marked D, provide that the whole amount of the principal of the grant made by the Commonwealth shall be funded, and the income only of such fund expended.

Professor Agassiz has cordially concurred with the policy adopted by the Trustees, as best designed to promote the permanent prosperity of the Museum, although the immediate effect has been to place the burden of carrying it on upon him, excepting so far as the income of the Gray Fund, appropriated to specific objects, gives him relief. The Museum now requires means to carry on its active operations, until it derive an income from the State grant, and to preserve the accumulated specimens without encroaching upon its capital. These accumulations, not yet arranged, are equal to those already in place, and the sum required to take proper care of them, and to continue the regular work now in progress, is stated by the Professor at twenty thousand dollars.

The Trustees respectfully request the legislature to make a grant to the Museum to meet its existing exigencies, and to relieve Professor Agassiz.

On behalf, and in the name of the Trustees,

WM. GRAY, *Secretary.*

APPENDIX.

[A.]

TRUSTEES OF THE MUSEUM OF COMPARATIVE ZOOLOGY, 1859.

THE GOVERNOR OF THE COMMONWEALTH,	NATHANIEL P. BANKS.
THE LIEUTENANT-GOVERNOR,	ELIPHALET TRASK.
THE PRESIDENT OF THE SENATE,	CHARLES A. PHELPS.
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES,	CHARLES HALE.
THE SECRETARY OF THE BOARD OF EDUCATION,	GEORGE S. BOUTWELL.
THE CHIEF JUSTICE OF THE SUPREME JUDICIAL COURT,	LEMUEL SHAW.

LOUIS AGASSIZ.	WILLIAM GRAY.
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JACOB BIGELOW,	NATHANIEL THAYER,
JAMES WALKER,	SAMUEL HOOPER,
GEORGE TICKNOR,	SAMUEL G. WARD,
JAMES LAWRENCE,	

His Excellency NATHANIEL P. BANKS, Governor of the Commonwealth,
President.

WILLIAM GRAY, *Secretary.*

SAMUEL G. WARD, *Treasurer.*

SAMUEL HOOPER, GEORGE S. BOUTWELL, NATHANIEL THAYER,
JAMES LAWRENCE, *Committee on Finance.*

LOUIS AGASSIZ, *Director of the Museum.*

GEORGE TICKNOR, LOUIS AGASSIZ, JACOB BIGELOW, WILLIAM GRAY,
Committee on the Museum.

COMMONWEALTH OF MASSACHUSETTS.

In the Year One Thousand Eight Hundred and Fifty-nine.

AN ACT to incorporate the Trustees of the Museum of Comparative Zoölogy.

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows:—

SECTION 1. The governor, the lieutenant-governor, the president of the senate, the speaker of the house of representatives, the secretary of the board of education, the chief justice of the highest judicial court, *ex-officiis*, and Louis Agassiz and William Gray, together with Jacob Bigelow, James Walker, George Ticknor, Nathaniel Thayer, Samuel Hooper, Samuel G. Ward, and James Lawrence, and their successors, are hereby made a body politic and corporate, by the name of the "Trustees of the Museum of Comparative Zoölogy," with all the powers and privileges set forth in the forty-fourth chapter of the Revised Statutes, so far as the same are applicable to the purposes for which said corporation is established, as hereinafter mentioned, and not inconsistent with the provisions of this act.

SECTION 2. Said corporation may receive, hold, purchase, and possess real and personal property not exceeding three hundred thousand dollars in value, to be used and improved for the erection, support, and maintenance of a Museum of Comparative Zoölogy at Cambridge, in this Commonwealth; and the sum of fifty thousand dollars, heretofore contributed in aid of the Museum of Comparative Zoölogy by William Gray, shall be deemed to be part of the sum required to be raised by private subscription for the said Museum, as a condition precedent to the payment by the Commonwealth to said Trustees, of any part of the avails of the sales of land in the Back Bay.

SECTION 3. The places of Louis Agassiz and William Gray, whenever the same or either of them shall become vacant by death, resignation, or otherwise, shall be filled by a concurrent vote of the senate and house of representatives, and the same course shall be afterwards adopted when the place of the successor of either of them shall become

vacant; but any vacancy occasioned by the death, resignation, or otherwise, of any of the other persons named in this act (except the members designated *ex-officiis*), or of the successors of such persons, shall be filled by election by the whole Board of Trustees, at meetings specially called for that purpose.

SECTION 4. The said Trustees shall arrange, so far as may be done consistently with the interests of the institution, for the distribution of duplicate specimens, by exchange or otherwise, among other colleges and institutions of learning in this Commonwealth and elsewhere. And the Museum belonging to said Trustees shall, at all reasonable times, and under reasonable regulations, be kept open to the public free of charge.

SECTION 5. This act shall take effect from and after its passage.

HOUSE OF REPRESENTATIVES, April 5, 1859.

Passed to be enacted.

CHARLES HALE, *Speaker*.

IN SENATE, April 6, 1859.

Passed to be enacted.

CHARLES A. PHELPS, *President*.

April 6, 1859.

Approved.

NATH'L P. BANKS.

COMMONWEALTH OF MASSACHUSETTS.

In the Year One Thousand Eight Hundred and Fifty-nine.

AN ACT to increase the School Fund, and to grant aid to the Museum of Comparative Zoölogy, Tufts, Williams, and Amherst Colleges, and the Wesleyan Academy at Wilbraham, out of the proceeds of the sales of the Back Bay Lands.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:—

SECTION 1. The avails of the sales of lands belonging to the Com-

monwealth in the Back Bay shall be paid into the treasury, to be held, invested, and applied, in accordance with the provisions of the resolves of the year one thousand eight hundred and fifty-seven, chapter seventy, and the moiety of such avails, which, by the provisions of said chapter, inures immediately to the use of the Commonwealth, and which, by the ninety-sixth chapter of the statutes of the year one thousand eight hundred and fifty-eight, is styled the "Bay Lands Fund," shall be held, invested, and appropriated as follows, that is to say: 1. The whole of such moiety, until the sum of three hundred thousand dollars shall have been so disposed of, shall be employed for the redemption of the scrip of the Commonwealth issued in the year one thousand eight hundred and fifty-six, in accordance with the provisions of the third section of chapter two hundred and thirty-five, of the acts of that year. 2. After such sum of three hundred thousand dollars shall have been received into the treasury, one half of the avails of the sales of such moiety shall, as fast as received, be added to the Massachusetts School Fund, for the purpose of increasing the principal sum thereof. 3. The remaining avails of such moiety shall, after being received into the treasury, be distributed upon the first day of August in each year among the institutions hereinafter named, in the proportions following, that is to say:—*First.* Twenty per centum of the avails of such moiety shall be paid to such persons as may at the present session of the legislature be incorporated as the "Trustees of the Museum of Comparative Zoölogy"; such payments, not to exceed in the aggregate the sum of one hundred thousand dollars. *Second.* Twelve per centum of the avails of such moiety shall be paid to the treasurer of the Trustees of Tufts College, upon the order of the Trustees; such payments not to exceed in the aggregate the sum of fifty thousand dollars. *Third.* Six per centum of the avails of such moiety shall be paid to the treasurer of the corporation of Williams College, upon the order of said corporation; such payments not to exceed in the aggregate the sum of twenty-five thousand dollars. *Fourth.* Six per centum of the avails of such moiety shall be paid to the treasurer of the corporation of Amherst College, upon the order of the corporation; such payments not to exceed in the aggregate the sum of twenty-five thousand dollars. *Fifth.* Six per centum of the avails of such moiety shall be paid to the treasurer of

the corporation of the Wesleyan Academy in Wilbraham, upon the order of the corporation; such payments not to exceed in the aggregate the sum of twenty-five thousand dollars.

SECTION 2. No payment as aforesaid shall be made to either of the before-named institutions unless before the time for each payment it shall be made to appear to the satisfaction of the governor and council that there has been secured by subscription in aid of such institution, in cash or bonds of unquestionable security, an amount equal to the amount then to be paid to such institution according to the terms of this act; nor to either of the institutions hereinafter named, unless there shall have been established in such institutions the number of free scholarships set against their respective names, that is to say: In Williams College, three free scholarships; in Tufts College, three free scholarships; in Amherst College, three free scholarships. The aforesaid free scholarships shall be under the control of the Board of Education, and may be filled and managed in such mode as now is, or may hereafter be provided by law, for the regulation of all free scholarships established by the Commonwealth.

SECTION 3. All the avails of the moiety of the sales of the public lands which, by the provisions of the seventieth chapter of the resolves of the year one thousand eight hundred and fifty-seven, inure immediately to the use of the Commonwealth, and the distribution of which is not otherwise provided for in this act, shall be added to the principal of the Massachusetts School Fund.

SECTION 4. The sum of one hundred thousand dollars shall be reserved, by the Commissioners of the Back Bay, out of the moiety of the avails of the sales of lands, which, by the resolves of the year one thousand eight hundred and fifty-seven, chapter seventy, may be drawn upon for the purposes of improvement, as set forth in said chapter; and the same shall be invested as a fund, the income whereof shall be appropriated to the support of the roads and bridges, which the Commonwealth has become bound to support by its contracts in regard to said Back Bay; and if, before the first payment shall be made to any institution of learning agreeably to this act, it shall be made to appear to the satisfaction of the governor and council that such amount cannot be spared from the moiety of the avails of such lands, subject to be drawn upon in favor of said commissioners, then the same may

be reserved out of the other moiety of the avails of the sales of said lands, after payment of the sum of three hundred thousand dollars, as provided for in section first.

SECTION 5. This act shall take effect from and after its passage.

Passed to be enacted. HOUSE OF REPRESENTATIVES, April 2, 1859.

CHARLES HALE, *Speaker.*

Passed to be enacted.

IN SENATE, April 2, 1859.

CHARLES A. PHELPS, *President.*

Approved.

April 2, 1859.

NATH'L P. BANKS.

BY-LAWS

OF THE

TRUSTEES OF THE MUSEUM OF COMPARATIVE ZOÖLOGY.

ARTICLE 1. The Governor of the Commonwealth shall be the President of the Corporation.

ARTICLE 2. There shall be a Secretary, who shall keep the records and notify all meetings.

ARTICLE 3. There shall be a Treasurer, who shall receive and pay all moneys, and shall have the custody of all papers relating to the property of the Corporation. He shall deposit, in the name of the Corporation, all sums received, in some bank approved by the Committee of Finance; and no money shall be drawn therefrom except upon checks signed by the Treasurer, and approved by at least one member of said committee. The Treasurer shall keep his accounts clearly, and they shall be at all times open to any Trustee.

ARTICLE 4. There shall be a Committee of Finance of four members, who shall examine the Treasurer's accounts monthly, and certify their examination in writing. They may direct investments of any of the

moneys of the Corporation at their discretion. They shall report their doings at every stated meeting of the Trustees. All propositions for the appropriation of money shall be referred to the Committee of Finance.

ARTICLE 5. There shall be a Director of the Museum, who shall have the immediate custody of the buildings and collections of the Corporation.

ARTICLE 6. There shall be a Committee on the Museum, who shall inspect the Museum from time to time, and report to the trustees such appropriations of funds as they shall deem expedient.

ARTICLE 7. Excepting the President, all officers, including the Committees of Finance and on the Museum, shall be chosen annually by ballot, and shall hold their offices until others shall be elected and qualified, provided they continue Trustees.

ARTICLE 8. There shall be an annual meeting of the Corporation on the last Wednesday of January in each year, at such hour and place as the President, or, in his absence, the Secretary may appoint, for the choice of officers; and special meetings shall be notified by the Secretary on the written request of the President or of two Trustees.

ARTICLE 9. Stated meetings of the Board of Trustees shall be held quarterly on the last Wednesdays of January, April, July, and October.

ARTICLE 10. Notice of any meeting shall be sent to each Trustee through the Boston Post Office, four days at least before the time fixed for such meeting.

ARTICLE 11. Eight trustees shall form a quorum for the transaction of business; but a smaller number may adjourn a meeting, and notice of such an adjournment, sent through the Boston Post-Office to each Trustee, shall be sufficient, although there may not be four days' previous notice thereof.

ARTICLE 12. Alterations and additions to the By-Laws may be made at any meeting by the affirmative vote of a majority of the Corporation; provided that such alterations and additions shall have been submitted at a preceding meeting, and notice thereof be given in calling the meeting when the same are to be acted upon.

ARTICLES OF AGREEMENT.

Made and executed at Boston, in the County of Suffolk, and Commonwealth of Massachusetts, on the fourteenth day of June, in the year of our Lord, one thousand eight hundred and fifty-nine, by and between the Trustees of the Museum of Comparative Zoölogy, on the one part, and the President and Fellows of Harvard College, on the other part:—

Whereas, Louis Agassiz, Lawrence Professor of Zoölogy and Geology in the Scientific School of Harvard University, has made a valuable collection of objects of Natural History, classified and arranged in such a manner as to illustrate and teach the principles of the science of Zoölogy, upon a systematic plan, which collection is at present contained in a perishable wooden building belonging to the said College;

And whereas, a fund of fifty thousand dollars has been already given to the President and Fellows of Harvard College by William Gray, in compliance with the request and from the estate of Francis C. Gray, late of said Boston, deceased, in trust to preserve the same as a separate fund, and to appropriate the income thereof to the establishment and maintenance of a Museum of Comparative Zoölogy at Harvard College, but no part of the same to be appropriated to the payment of salaries or to the purchase of real estate, which donation was made and accepted on a condition that the said Museum be arranged and conducted under the superintendence of a body of five persons to be denominated the Faculty of the Museum of Comparative Zoölogy, and constituted as follows, to wit:—

The President of the University for the time being to constitute the head, the four other members, being men conversant with this department of science, having in the first instance been nominated by the donor of said fund, and approved by the said President and Fellows, and thus said Faculty being already organized and established; but constituted with this further provision, that whenever a vacancy, other than that of the President, shall occur in said Faculty, it shall be the duty of the remaining members to nominate a person of suitable qualifications to supply the vacancy, and notify such nomination to the Pres-

ident and Fellows, and, on being approved by them, such person to become a member of said Faculty, with the rights and powers incident thereto ;

And whereas, the funds and means of the said President and Fellows, at their disposal for this purpose, are inadequate to accomplish the object contemplated, and a strong desire has been expressed by the friends of science that increased means may be speedily afforded, not only for the security and preservation of the collection already made, but also for the establishment of the said Museum on a permanent foundation, that it may be enlarged and made as far as practicable complete, so as to extend and render more exact the knowledge of this department of Natural History upon scientific principles, and in pursuance thereof, the Legislature of the Commonwealth did, at their last session, make an appropriation of one hundred thousand dollars, which may soon be available for the erection, support, and maintenance of a Museum of Comparative Zoölogy, at Cambridge, upon a condition, however, that a like amount shall have been obtained, by private subscription, in aid of such Institution, and did, at the same session, incorporate a Board of Fifteen Trustees, by an Act entitled "An Act to incorporate the Trustees of the Museum of Comparative Zoölogy," by which last Act it is provided, that the sum of fifty thousand dollars, theretofore contributed in aid of the Museum of Comparative Zoölogy by William Gray, shall be deemed to be a part of the sum required to be raised by private subscription for the said Museum, as a condition precedent to the payment, by the Commonwealth to said Trustees, of any part of the sum then granted ;

And whereas, more than fifty thousand dollars, to wit, a sum amounting at present to about seventy thousand dollars, making, together with the donation of said William Gray, more than one hundred thousand dollars, have been subscribed and raised by private persons, and by them ordered to be paid to the said Trustees thus incorporated, to be appropriated and applied to the same objects with the sum appropriated by the State, so that the said condition has been complied with ;

And whereas, it is deemed desirable by all parties interested in this object, that all the means placed under the control of either Corporation, the Trustees of the Museum, or the President and

Fellows of the College, shall be devoted in such time and manner as they are needed and can be beneficially applied to the advancement of the common object, and for this end that a suitable building be erected as speedily as practicable for the preservation of the collections already made, and of those which may be made, upon a plan capable of being enlarged and extended as the increased collections of the said institution may from time to time require ; and the said trustees being ready and willing to apply a sufficient portion of the fund under their control to the erection of a suitable building adapted to the present wants of the institution, on receiving the conveyance of a lot of land properly situated and adapted to meet such present wants, and capable of admitting such future extension and enlargement, and desirous, in furtherance of the objects of their incorporation and in the execution of their trust, to make such arrangements and contracts as shall secure to such institution the resources of the University for education and the advancement of science ;

And whereas, a parcel of land conveniently situated, and now the property of the College, has been examined, surveyed, and selected as a place suitable for the erection of buildings for the said Museum, for all the uses and purposes for which the same is intended, and the said President and Fellows of Harvard College, desirous, as far as it may be consistent with their powers, and the trusts reposed in them, to promote and advance the establishment, increase, and beneficial use of said Museum, as an institution well adapted to foster the interests of education, and to advance an important branch of science, and to promote the love and knowledge of it in the community, are ready and willing to convey the legal title to said lot of land, and also their interest in the collection already made, and all additions to be made thereto hereafter, upon a nominal consideration, to the said Trustees, provided the same be thus conveyed to said Trustees and their successors, in fee, upon strict trust and confidence that the said estate and collections shall be used and improved solely and exclusively for the erection of buildings, the maintenance, improvement, and extension of the same, and for the establishment and maintenance of such Museum to be used, occupied, governed, and managed in strict conformity to the rules and regulations hereby adopted by both said Corporations ;

And whereas, the said Trustees are ready and willing to accept and receive a conveyance in fee of the said parcel of land, upon the conditions and trusts specified, and thereupon to proceed as soon as may be to the commencement of buildings thereon for the purposes specified:—

Now, therefore, the Trustees of the Museum of Comparative Zoölogy, and the President and Fellows of Harvard College, for themselves and their respective successors, do hereby mutually agree to unite the means with which they have been or may hereafter be respectively intrusted for that purpose, for the establishment, maintenance, and practical usefulness of the Museum of Comparative Zoölogy at Cambridge, and do hereby agree upon and establish the following Rules and Regulations for the government, occupation, care and management of the said institution.

1. Each Corporation shall retain and manage the funds now held, or which may hereafter be held by it, according to the trusts on which the same have been or may be given.

2. The property in the Museum, land, buildings, furniture, and collections, present and future, shall be vested in said Trustees, in trust, to hold the same for the uses declared by these Articles of Agreement, and for such uses as may hereafter be declared as hereinafter provided.

3. Each Corporation shall retain the power to appropriate from the funds under its control such sums as it may deem expedient.

4. The duty and power of erecting buildings from funds appropriated and set apart for that purpose, and of adding to and extending the same hereafter, as funds shall be appropriated for that purpose, upon plans which shall render such buildings part of a complete and harmonious whole; and the duty of taking care of said buildings, and causing them to be kept in repair, shall devolve upon and vest in said Trustees.

5. The Director of the Museum of Comparative Zoölogy, an officer appointed or to be appointed by said Trustees, shall make arrangements, under the supervision of the Faculty aforesaid, for the reception of visitors, either upon special or general invitation, and of the public at large, at suitable times and under suitable regulations, to

visit and examine the Museum ; and such arrangements shall be made with a view to secure to the public the freest enjoyment of, and access to the Museum, consistent with its use for scientific and educational purposes.

6. The Lawrence Professor of Zoölogy in the Scientific School of Harvard University, or the officer charged with the instruction in that department of science for the time being, shall be the Curator and scientific head of the Museum, subject to the control and regulation of the Faculty of the Museum hereinbefore mentioned, in whom the power to determine the use of the Museum for scientific and educational purposes, either by general regulations or by specific orders, is ultimately vested ; and the compensation paid to such Curator as Professor in the Lawrence Scientific School shall be regarded as full compensation for instructions given and services rendered in the Museum, until further provision is made therefor.

7. It shall be the duty of such Curator, under the like direction and control of the Faculty of the Museum aforesaid, when funds shall have been appropriated and placed at the disposal of the said Faculty by either of the Corporations for the purpose, to make purchases of such articles as shall be necessary and suitable for the increase of said Museum, in any of its departments, and to direct all necessary expenses for the transportation and other charges incident to their acquisition, and all necessary expenses for vessels and materials incident to the preservation and exhibition of such articles, and to have the entire charge and control of the classification and scientific arrangement of them.

8. Whenever it shall become necessary to employ any assistant or assistants to the Curator aforesaid, for the preparation, arrangement, classification, or scientific or educational use of the collections in the Museum, and any funds for the compensation of such assistants shall have been appropriated by either Corporation, and placed at the disposal of the Faculty of the Museum for that purpose, such assistants shall be appointed and employed by the Faculty, or under their direction, in such manner as they shall prescribe.

9. It shall be the duty of the Curator, under the control and direction of the Faculty of the Museum, to fix suitable times, and also suitable places within the Museum, to give lectures and instruc-

tion to regular classes of students under his care, to classes of teachers of the Public schools, and to classes of pupils in the Normal schools in the Commonwealth, and to such special classes of students and persons desirous of availing themselves of his instructions and of the advantages of the Museum, as he may receive or invite for those purposes.

10. No person officially connected with the Museum shall be permitted to make any private collection, or to trade in specimens of Natural History, except for the Museum.

11. Whenever the office of Director of the Museum established by the Trustees, and that of Curator of the Museum, as hereinbefore defined, shall be held by different persons, the Faculty of the Museum shall, subject to these articles, and such other articles as may be adopted by both Corporations as hereinafter provided, define the relative duties of the incumbents, and superintend their execution.

12. These rules and regulations, mutually agreed on and adopted by the parties, shall not be repealed or altered, except by a formal agreement between the parties, or by a concurrent vote passed by each Corporation specifying such repeal or alteration, and entered upon the records of both said Corporations.

In testimony whereof, the said parties have hereto affixed their respective seals, under the hands of their respective Presidents, on the day and in the year first above written.

THE PRESIDENT AND FELLOWS OF

HARVARD COLLEGE. [L. s.]

By JAMES WALKER, *President*.

THE TRUSTEES OF THE MUSEUM

OF COMPARATIVE ZOÖLOGY, [L. s.]

By NATH'L P. BANKS, *President*.

In presence of

EDWARD S. RAND,

WM. GRAY, JR.

At a meeting of the Trustees of the Museum of Comparative Zoölogy, held June 1, 1859, it was

Voted, That the President of this Corporation be, and is hereby

authorized and empowered to execute the Articles of Agreement with the President and Fellows of Harvard College, reported by the Committee of Conference, and this day agreed to by this Board, under his hand, and thereto affix the seal of this Corporation, and on receiving the deed of conveyance from said President and Fellows, pursuant to the terms of said Articles, and a counterpart of these Articles of Agreement, duly executed by said President and Fellows, to deliver to that Corporation the Articles of Agreement thus executed, as the free act and deed of this Board.

Attest :

WM. GRAY, *Secretary.*

The Articles referred to in the above Vote are on the preceding pages.

Attest :

WM. GRAY, *Secretary.*

At a special meeting of the President and Fellows of Harvard College in Boston, June 2, 1859,

Voted, That the President of this Corporation be and is hereby authorized and empowered to execute the Articles of Agreement with the Trustees of the Museum of Comparative Zoölogy reported by the Committee of Conference, and this day agreed to by this Board, under his hand, and thereto to affix the seal of this Corporation, and on receiving a counterpart of these Articles of Agreement duly executed by the said Trustees, to deliver to that Corporation the Articles of Agreement thus executed, as the free act and deed of this Board.

Attest :

GEO. PUTNAM, *Secretary.*

The Articles referred to in the above Vote are on the preceding pages.

Attest :

GEO. PUTNAM, *Secretary.*

COMMONWEALTH OF MASSACHUSETTS.

Suffolk ss.

BOSTON, June 14, A. D. 1859.

The within-named James Walker acknowledged the within-written instrument to be the free act and deed of the President and Fellows of Harvard College; and the within-named Nathaniel P. Banks also acknowledged the same to be the free act and deed of the Trustees of the Museum of Comparative Zoölogy.

Before me,

EDWARD S. RAND, *Justice of the Peace.*

DEED OF THE LAND.

To all Persons to whom these Presents shall come, the President and Fellows of Harvard College send Greeting :

WHEREAS it has been agreed by a contract entered into on the day of the date of this instrument by and between the Trustees of the Museum of Comparative Zoölogy on the one part, and the President and Fellows of Harvard College on the other part, the object of which agreement is to provide for the establishment, maintenance, and use of a Museum of Comparative Zoölogy at Cambridge ; and whereas it was among other things in and by said contract agreed between the parties, that the said President and Fellows would transfer and convey to said Trustees and their successors in fee upon a nominal consideration a parcel of land situated in Cambridge, which tract and parcel of land is hereafter specially described, and also the collection of articles already acquired by said President and Fellows, towards the formation of such a Museum, and their interest in all additions hereafter to be made, to be held in strict trust by said Trustees upon the terms, conditions, and trusts therein specified, and hereinafter stated.

Now, Therefore, Know Ye, that the President and Fellows of Harvard College, in consideration of the premises and of one dollar to them in hand paid by the Trustees of the Museum of Comparative Zoölogy, the receipt whereof is hereby acknowledged, do hereby give, grant, bargain, sell, release, convey, and quitclaim to the said Trustees of the Museum of Comparative Zoölogy, their successors and assigns, the collection aforesaid, together with all that tract and parcel of land situated in Cambridge, and bounded and described as follows, to wit : Commencing at the southeast corner of the granted premises at the corner of a fence by land of Saunders, thence running westerly by land of said Saunders, as the fence stands, about three hundred and thirty-seven feet to the corner ; thence northerly by lands of Torrey, of Wait, and of Stone and Jarvis, about three hundred and ninety-eight and one half feet to an angle ; thence a little east of north by land of Stone and Jarvis, about fifty-eight feet ; thence by land of Stone and Jarvis, about fifty-three and one half feet to a corner ; thence northeasterly by land of Stone and Jarvis and

land of Palfrey, about two hundred and seventy-five feet five inches ; thence south of east by land of Palfrey, eleven feet ; thence east of north by land of Palfrey, about eleven feet two inches ; thence north-easterly by land of Palfrey, about forty-four feet, to a point in the westerly line of Divinity Hall Avenue extended ; thence turning and running by said westerly line of Divinity Hall Avenue extended, to the corner begun at, together with a right of way in an avenue running along the whole easterly side of the granted premises, from the land of Palfrey aforesaid, to Kirkland Street, seventy-five feet wide at Kirkland Street, and of about the same width through its whole length, in common with the owners of the land now adjoining said avenue on the east, and now occupied in part by Divinity Hall, and owned by the grantors, but reserving in this conveyance and excepting from this grant an easement in favor of the owners of the land on which Divinity Hall now stands, that a piece of the land hereby conveyed shall be forever kept open and free from buildings, and for the purpose of light, air, and ornament ; namely, a piece two hundred feet in length on said avenue extended, lying exactly west of said Divinity Hall, and extending two hundred feet in width westerly from said Hall ; provided, however, that this reservation and restriction shall cease whenever the owners of the estate on which said Divinity Hall now stands shall by deed in writing, duly executed, release the same to the said Trustees.

To have and to hold the premises to them the said Trustees of the Museum of Comparative Zoölogy, their successors and assigns to and for their own use forever, upon strict trust and confidence nevertheless, that the said estate and collection shall be held, used, and improved solely and exclusively for the erection of buildings, and the maintenance, improvement, and extension thereof, and for the establishment and maintenance of the Museum of Comparative Zoölogy, such Museum to be used, occupied, managed, and governed in strict conformity to the rules and regulations thereby agreed on and adopted by the mutual assent and act of both parties, by their contract aforesaid, bearing even date herewith, and which are not to be repealed or altered without the consent of both parties, by a mutual agreement, or by the concurrent vote of each Corporation passed and entered in full on their respective records.

In witness whereof the said President and Fellows have caused their corporate seal to be hereto affixed, and these presents to be subscribed by James Walker, their President, this fourteenth day of June, in the year of our Lord eighteen hundred and fifty-nine.

THE PRESIDENT AND FELLOWS

OF HARVARD COLLEGE, [L. s.]

By JAMES WALKER.

Signed, sealed, and delivered in presence of

EDWARD S. RAND,

WM. GRAY, JR.

COMMONWEALTH OF MASSACHUSETTS.

Suffolk ss.

BOSTON, June 14, A. D. 1859.

The above-named James Walker, President, acknowledged the foregoing instrument to be the free act and deed of the President and Fellows of Harvard College.

Before me,

EDWARD S. RAND, *Justice of the Peace.*

At a special meeting of the President and Fellows of Harvard College, in Boston, June 2, 1859,

Voted, That the President of this Corporation be, and is hereby, authorized and empowered to execute the Articles of Agreement with the Trustees of the Museum of Comparative Zoölogy reported by the Committee of Conference, and this day agreed to by this Board, under his hand, and thereto to affix the seal of this Corporation; and on receiving a counterpart of these Articles of Agreement duly executed by the said Trustees, to deliver to that Corporation the Articles of Agreement thus executed, as the free act and deed of this Board.

Voted, That the President of this Corporation be, and he is hereby authorized and empowered, on receiving a counterpart of the said Articles, duly executed by the said Trustees, to execute and deliver a deed of conveyance of the land therein referred to, as described in the deed herewith presented, Pursuant to said Articles of Agreement, and acknowledge and deliver the same, as the free act and deed of this Corporation.

Attest :

GEO. PUTNAM, *Secretary.*

The foregoing deed is that referred to in Articles of Agreement above-mentioned and in the above vote.

Attest :

GEO. PUTNAM, *Secretary.*

TERMS OF THE GRAY DONATION.

At a stated meeting of the President and Fellows of Harvard College in Boston, December 24, 1858, the President read another communication from William Gray, Esq., as follows :—

BOSTON, December 20, 1858.

To the President and Fellows of Harvard College :—

My uncle, Francis C. Gray, at the time of executing his last will, by which he made me his residuary legatee, addressed to me a letter with these clauses :—

“After providing fully for all the bequests in my will, including that to yourself, if there shall remain, two years after my death, a surplus beyond everything given in my will as above, then I wish you would out of that surplus, and not otherwise, give to Harvard College, or to such other institution as you see fit, my collection of Engravings, with all books relating to that subject, including Rossellini, Audubon, and Wilson, etc., together with sixteen thousand dollars, of which one thousand and the income are to be appropriated in the first place to keeping the same in order, and to publishing a catalogue of the same as I leave it.

“And also give, out of such surplus only, to Harvard College, or such other institution as you see fit, the further sum of fifty thousand dollars; the income to be applied to establishing and maintaining a Museum of Comparative Zoölogy; not to be appended to any other department; but to be under the charge of an independent Faculty, responsible only to the Corporation and Overseers. No part of said income is to be expended for real estate or for the payment of salaries.”

He also desires me to impose such conditions and restrictions on these donations as I may see fit. The two years mentioned in his letter will expire on the twenty-ninth day of December current.

I have already presented the collection of Engravings to the College, and in another letter of this date, I placed at its disposal the Fund designated in the first of the clauses cited in this communication.

In compliance with my uncle's request, I offer to give to Harvard

College, on the twenty-ninth day of December current, the sum of fifty thousand dollars on these conditions :—

First. That the same be kept as a separate and distinct fund, and invested from time to time at the discretion of the Corporation, provided that no part thereof shall ever be invested in real estate, or in the shares or stock of any incorporated or joint-stock company.

Second. No part of the income of said Fund shall ever be expended for real estate, or the payment of salaries.

Third. The income is not to be subject to any charges of any nature, but the whole amount derived from the Fund is to be applied to establishing and maintaining a Museum of Comparative Zoölogy at Harvard College.

Fourth. Neither the Collections nor any building which may contain the same shall ever be designated by any other name than the Museum of Comparative Zoölogy at Harvard College.

Fifth. The Museum shall never be appended to any other department, but is to be under the charge of an independent Faculty, responsible only to the Corporation and Overseers.

Sixth. The President of the College shall be the President of the Faculty, which shall be composed of four members besides the President. In case of vacancy in their number other than that of President, the Faculty shall from time to time nominate to the Corporation persons to fill such vacancies ; and, if confirmed by the Corporation, such persons are to become members of the Faculty ; if rejected, new nominations shall be made by the Faculty to the Corporation.

Seventh. The Faculty are not to be at liberty to expend any part of the income of the Fund, unless previously placed at their disposal by the Corporation.

Eighth. The first Faculty shall consist of Rev. Dr. James Walker, President of the College ; Professor Louis Agassiz, Director of the Museum ; Dr. Jacob Bigelow, Professor Oliver Wendell Holmes, and Professor Jeffries Wyman.

Ninth. In case of the loss of any part of the Fund, so much of the income as may be requisite for this purpose shall be retained to make good such loss, provided that not more than one half of the income shall be so retained in any one year.

Tenth. That the Corporation enter this donation with its conditions upon their records, and vote to accept the same.

Upon receiving an attested copy of the record, I will complete the gift at the time indicated.

I am very respectfully yours,

WM. GRAY.

Whereupon it was

Voted, That the President and Fellows of Harvard College gratefully accept this munificent gift on the terms and conditions proposed in the letter of Mr. Gray, above recited.

Voted, That the Corporation cannot record this third and crowning act of liberality, originating in the declared wishes of the late Hon. Francis C. Gray, as to the disposition of his property, without renewing the expression of their profound respect for his memory as an enlightened friend of learning, and of all institutions for the public good, and of their profound gratitude for his generous thoughts and purposes respecting Harvard Collège.

Voted, That the Corporation are duly sensible that the final determination as to these noble charities was left to William Gray, Esq., in his capacity as executor and residuary legatee of his uncle's estate; and they therefore request the President to write a suitable letter of acknowledgment to that gentleman, thanking him for a liberality of conduct, and a generous regard for the interests of the University, which will forever associate his own and his uncle's name in these wise and munificent endowments.

Voted, That the preceding votes, with the letter of Mr. Gray, be communicated to the Overseers, that they may concur therein if they see fit.

A true copy of record,

Attest:

GEO. PUTNAM, *Secretary*.

IN BOARD OF OVERSEERS OF HARVARD COLLEGE,
BOSTON, January 27, 1859.

Resolved, That the Overseers of Harvard College concur with the President and Fellows in their vote of the 24th of December, 1858,

by which they have accepted the donation of fifty thousand dollars, described in the letter of William Gray, Esq., which vote has been laid by the Corporation before this Board for its concurrence and approval.

Resolved, That the members of this Board heartily concur with the President and Fellows in the expression of "profound respect for the memory of the late Hon. Francis C. Gray, as an enlightened friend of learning, and of all institutions for the public good, and of their profound gratitude for his generous thoughts and purposes respecting Harvard College." And they also most cordially approve of, and concur in the vote of the President and Fellows, by which "they (being sensible that the final determination of this, and other noble charities, was left to William Gray, Esq., in his capacity of executor and residuary legatee of his uncle's estate) requested the President to write a letter of acknowledgment to that gentleman, thanking him for a liberality of conduct and a generous regard for the interests of the University which will ever associate his own and his uncle's name, in this and other wise and munificent endowments."

A true copy of record,

Attest :

NATHANIEL B. SHURTLEFF, *Secretary*.

THE PRIVATE SUBSCRIPTION.

To Samuel G. Ward, Esquire :—

DEAR SIR, — The Legislature having created a corporation, by the name of "The Trustees of the Museum of Comparative Zoölogy," for purposes concurrent with those of the subscribers to the funds now in your hands, and under our directions, we hereby authorize and request you to pay over to the said corporation the whole of the funds subscribed and paid to you, or hereafter to be paid to you under the following instrument, to wit :—

"WE, the subscribers, hereby promise to pay to Samuel G. Ward, Esq., the sums set against our names respectively, to be held by him in trust : *First*, for the erection in such manner as may be directed

by a committee appointed at a meeting held on the 21st of January, 1859, of a fireproof building in Cambridge, suitable to receive, to protect, and to exhibit advantageously and freely to all comers, at all proper times, and under reasonable conditions, the collection of objects in Natural Science, brought together by Professor Louis Agassiz, with such additions as may hereafter be made to it; and, *Second*, for such other purposes as in the judgment of the same committee, and under such conditions as they may prescribe, will best promote the study and advancement of the science which this collection is intended to teach and illustrate; the committee referred to as intrusted with these powers and these duties being Jacob Bigelow, George Ticknor, James Lawrence, William W. Greenough, Samuel Hooper, Thomas G. Cary, Samuel G. Ward, John M. Forbes, William S. Bullard, James M. Barnard, Ezra Lincoln, Theodore Lyman, Martin Brimmer, Franklin Haven, and Gardner Brewer. And these persons shall have power to fill all vacancies in their own number, to act by a major part of those present, all having been duly notified, and to delegate such parts of their powers from time to time, as they may deem expedient, to committees of their own number, or to other persons," —

To be held, used, and appropriated by the said corporation for the purposes above-mentioned, as fully and effectually as the same could have been used and appropriated by us.

JACOB BIGELOW.
 GEORGE TICKNOR.
 JAMES LAWRENCE.
 WILLIAM W. GREENOUGH.
 S. HOOPER.
 THOMAS G. CARY.
 SAMUEL G. WARD.
 W. S. BULLARD.
 J. M. FORBES.
 EZRA LINCOLN.
 THEODORE LYMAN.
 M. BRIMMER.
 FRANKLIN HAVEN.
 JAMES M. BARNARD.
 GARDNER BREWER.

BOSTON, April 30, 1859.

List of Subscribers to the Fund.

N. Thayer,		\$5,000 00
Nathan Appleton,	\$2,000 00	
Jonathan Philips,	2,000 00	
John P. Cushing,	2,000 00	
John M. Forbes,	2,000 00	
Theodore Lyman,	2,000 00	
William Sturgis,	2,000 00	
Mrs. Abbott Lawrence,	2,000 00	
Samuel Hooper,	2,000 00	
Abbott Lawrence,	2,000 00	
	<hr/>	18,000 00
Jacob Bigelow,	\$1,000 00	
Thomas G. Cary,	1,000 00	
Samuel G. Ward,	1,000 00	
James M. Barnard,	1,000 00	
William Appleton,	1,000 00	
John C. Gray,	1,000 00	
Miss Mary Pratt,	1,000 00	
A. Hemenway,	1,000 00	
A. A. Lawrence,	1,000 00	
Peter C. Brooks, Jr.,	1,000 00	
G. H. Shaw,	1,000 00	
William F. Weld,	1,000 00	
Miss Brimmer,	1,000 00	
George Ticknor,	1,000 00	
Gardner Brewer,	1,000 00	
James Lawrence,	1,000 00	
M. Brimmer,	1,000 00	
David Sears,	1,000 00	
William P. Mason,	1,000 00	
Miss Sarah P. Pratt,	1,000 00	
H. B. Rogers,	1,000 00	
Josiah Bradlee,	1,000 00	
Moses Williams,	1,000 00	
Stephen Salisbury,	1,000 00	
Charles Sanders,	1,000 00	
Mrs. M. F. Sayles,	1,000 00	
	<hr/>	\$26,000 00
<i>Amount carried forward,</i>		<hr/> \$49,000 00

<i>Amount brought up,</i>		\$49,000 00
Franklin Haven,	\$500 00	
Ozias Goodwin,	500 00	
William T. Andrews,	500 00	
P. C. Brooks,	500 00	
B. G. Boardman,	500 00	
Josiah Quincy,	500 00	
Mrs. Elijah Loring,	500 00	
F. Skinner,	500 00	
John L. Gardner,	500 00	
Samuel A. Appleton,	500 00	
Miss Sara Greene,	500 00	
Miss Mary Wigglesworth,	500 00	
William S. Bullard,	500 00	
Paschal P. Pope,	500 00	
Joseph Whitney,	500 00	
George B. Sargent,	500 00	
Thomas B. Wales,	500 00	
Jeffrey Richardson,	500 00	
Miss Abby M. Loring,	500 00	
E. A. & W. Winchester,	500 00	
George F. Parkman,	500 00	
Mrs. G. H. Shaw,	500 00	
C. M. Warren (N. Y.),	500 00	
Miss Ann Wigglesworth,	500 00	
	<hr/>	12,000 00
Henry Grew,	\$300 00	
B. D. Greene,	300 00	
"N. N.," by James Lawrence,	300 00	
Edward Wigglesworth,	300 00	
Mrs. R. G. Shaw,	300 00	
	<hr/>	1,500 00
J. C. Howe,		250 00
Edward Everett,	\$200 00	
James Davis, Jr.,	200 00	
J. W. Trull,	200 00	
James Parker,	200 00	
	<hr/>	<hr/>
<i>Amounts carried forward,</i>	\$800 00	\$62,750 00

<i>Amounts brought up,</i>	\$ 800 00	\$ 62,750 00
Henry Timmins,	200 00	
J. Huntington Wolcott,	200 00	
William Amory,	200 00	
Henry P. Sturgis,	200 00	
George O. Hovey,	200 00	
George R. Russell,	200 00	
Alfred A. Reed,	200 00	
	<hr/>	2,200 00
Robert C. Winthrop,	\$ 150 00	
Dana, Farrar, & Hyde,	150 00	
J. L. Gorham,	150 00	
D. G. & W. B. Bacon,	150 00	
	<hr/>	600 00
Henry Lee, Jr.,	\$ 100 00	
G. T. Bigelow,	100 00	
William Evans,	100 00	
H. F. Durant,	100 00	
Ezra Lincoln,	100 00	
Charles G. Loring,	100 00	
George Callender,	100 00	
J. Amory Davis,	100 00	
John Stearns, Jr.,	100 00	
T. W. Pierce,	100 00	
Larkin, Stackpole, & Co.,	100 00	
Mrs. Abby L. Wales,	100 00	
N. L. Frothingham,	100 00	
Fishers & Chapin,	100 00	
D. W. Williams,	100 00	
J. T. Heard,	100 00	
J. H. Beale,	100 00	
G. R. Minot,	100 00	
Thomas Wigglesworth,	100 00	
John J. May,	100 00	
George Baty Blake,	100 00	
James Bowdoin Bradlee,	100 00	
Francis Bacon,	100 00	
	<hr/>	<hr/>
<i>Amounts carried forward,</i>	\$ 2,300 00	\$ 65,550 00

<i>Amounts brought up,</i>	\$2,300 00	\$ 65,550 00
J. W. Edmands,	100 00	
Alpheus Hardy,	100 00	
John Simmons,	100 00	
Richard Fletcher,	100 00	
W. W. Tucker,	100 00	
William H. Swift,	100 00	
William Minot,	100 00	
G. H. Kuhn,	100 00	
Newell A. Thompson,	100 00	
Charles Amory,	100 00	
Robert Waterston,	100 00	
James Guild,	100 00	
William Perkins,	100 00	
Miss Mary Ann Wales,	100 00	
H. Woodman,	100 00	
Henry Lee,	100 00	
N. Hooper,	100 00	
J. Theodore Heard,	100 00	
Daniel Denny,	100 00	
Jonathan French,	100 00	
Freeman Allen,	100 00	
S. C. Thwing,	100 00	
Dr. G. H. Lodge,	100 00	
R. S. Fay, Jr.,	100 00	
Henry Cabot,	100 00	
Israel Lombard,	100 00	
	<hr/>	4,900 00
H. Parker,	\$50 00	
Thomas Shimmin,	50 00	
C. F. Shimmin,	50 00	
John Ware,	50 00	
U. Crocker,	50 00	
J. A. Blanchard,	50 00	
W. H. Milton,	50 00	
A. T. Hall,	50 00	
Prescott & Chapin,	50 00	
	<hr/>	
<i>Amounts carried forward,</i>	\$ 450 00	\$ 70,450 00

<i>Amounts brought up,</i>	\$ 450 00	\$ 70,450 00
“ N. N.,”	50 00	
Moses Grant,	50 00	
G. H. Peters,	50 00	
Samuel May,	50 00	
		650 00
Edward King (N. Y.),		25 00
Total,		\$ 71,125 00

[B.]

To the Trustees of the Museum of Comparative Zoölogy in Cambridge:—

MR. PRESIDENT AND GENTLEMEN, — When I appeared last spring before a Joint Committee of the House and Senate, to solicit State aid in behalf of a Museum of Comparative Zoölogy, I mentioned incidentally that it was my intention to present to such an institution, after it should have been founded, whatever collections I may myself possess, that could be acceptable for its increase.

It is now my desire formally to fulfil that engagement.

Allow me to state in this connection, that since 1852, when the collections I had made up to that time were secured for the University by a subscription raised among citizens of Boston, I have taken charge of these specimens, and cared for their safe preservation by providing for jars, alcohol, and the other means of keeping them in a good condition, and also largely increased the collection by securing, at my private expense, as many more specimens as I could up to last year, when the Corporation, of Harvard College began to aid me by a monthly allowance, until the movement was set on foot which has ended in the establishment of the institution now in course of operation.

What I now offer to you for acceptance, is the collection I have made since 1852, and any claim I may have upon the Museum for the care of that part of the collection secured at that time for the University. The sums I have paid in cash for making these additions to the Museum, including the expenses for preserving the specimens belonging to the University, amount to \$10,000, not counting my travelling

expenses when making excursions and longer journeys for the purpose of gathering specimens.

I hope, Mr. President and Gentlemen, you will accept this contribution to the Museum from a student of Nature who feels deeply grateful for all that you are doing for the advancement of his favorite science.

Please, Mr. President and Gentlemen, to accept the assurance of my highest regard, and of my entire devotion to our scientific institutions.

L. AGASSIZ.

CAMBRIDGE, October 24, 1859.

BOSTON, January 25, 1860.

The Committee to whom at the meeting of the Board of Trustees, November 10, 1859, was referred the communication of Professor Louis Agassiz, dated October 24, by which he offered, as a donation to the Museum, all his collections in Zoölogy made since 1852, respectfully report the form of a letter to him, which, they propose, should be signed by the members of this Board, individually, and then transmitted to its address by the President, acknowledging and accepting the munificent gift.

GEO. TICKNOR.
JACOB BIGELOW.
S. HOOPER.

COMMONWEALTH OF MASSACHUSETTS.

BOSTON, January 25, 1860.

To Louis Agassiz, Professor of Zoölogy and Geology in the Lawrence Scientific School, Harvard College:—

SIR, — The subscribers, Trustees of the Museum of Comparative Zoölogy, at their last meeting, received from you a communication, offering as a donation to the Museum all the collections you have made in zoölogy since the year 1852. This gift they gratefully accept. In so doing, however, they desire to express their conviction that, while the sum of ten thousand dollars, by which in general terms you describe the cost to yourself of these collections, is un-

doubtedly much below the sum you have thus expended, still they are sensible that the importance of what you have now so freely contributed to the cause of science is to be measured by no such modes of computation. For, they are aware, that to you personally — to your genius, your love of science, your courage and disinterestedness — the original establishment of the Museum of Comparative Zoölogy is due more than to any other cause whatever, or to all other causes united. They are aware that you have personally given what they believe will prove a decisive and guiding impulse to the study of Natural History in these United States. They therefore cannot accept your munificent gift without remembering that, whatever may have been its pecuniary cost, your character and services have imparted to it much the largest portion of its great and acknowledged value. Neither can they omit to express their earnest hope not only that you may long live to enjoy and sustain the institution which you have founded, but that future generations, mindful of what they owe you, may, with equal fidelity, carry on the work you have begun with so much energy and success.

We remain very faithfully your friends,

NATHANIEL P. BANKS,

Governor of the Commonwealth.

ELIPHALET TRASK,

Lieutenant-Governor.

CHARLES A. PHELPS,

President of the Senate.

JOHN A. GOODWIN,

Speaker of the House of Representatives.

GEORGE S. BOUTWELL,

Secretary of the Board of Education.

LEMUEL SHAW,

Chief Justice of the Supreme Judicial Court.

WILLIAM GRAY.

JACOB BIGELOW.

JAMES WALKER.

GEORGE TICKNOR.

NATHANIEL THAYER.

S. HOOPER.

SAMUEL G. WARD.

JAMES LAWRENCE.

[C.]

REPORT

Of the Director of the Museum of Comparative Zoölogy, for the year 1859, presented to the Board of Trustees in January, 1860.

THE Museum of Comparative Zoölogy is now organized in such a manner, that its rapid increase may be considered as secure. The time when it may rank with the largest establishments of the kind now in existence will depend solely upon the amount of money that can be annually appropriated for its increase. Its resources consist at present in the income from the Gray Fund, the grant of the State, and the capital secured by subscription during the past year, part of which has been spent in the new building, now nearly completed, and in the purchase of several important collections.

Among the means best adapted to raise the Museum to the first rank among similar institutions, I would point out, as the most practicable, the purchase of all the private collections that may be for sale, which contain the labors of distinguished naturalists during a lifetime. Next to this, I would recommend the publication, in a suitable form, of all the investigations that are now making in the Museum.

There are now, besides myself, nineteen individuals connected with the Museum, whose work I am daily directing, superintending, and revising, and the amount of materials accumulated and arranged during the past year is truly astonishing. I doubt whether any Museum has received, during the last twelve months, as large accessions as ours; and I am satisfied, that if the means are provided to make known all that is new to science in these large stores, our Museum will very soon be ranked among those that contribute most largely to the progress of science, as I know it already deserves a place among those in which most work is done. With two exceptions only, all the individuals now connected with the scientific work of the Museum are either students or graduates of the Scientific School; and it is but justice to them to say, that I daily receive essential assistance from their co-operation.

Work done in the Museum.

There has been some interruption in the regular employment of those connected with the Museum, arising partly from my absence in Europe, and partly from the loss of time necessarily spent in the removal of the collections to the new building, a work in which all the students have united with the most hearty good-will. Nevertheless, special investigations have been made as before, by all those who were sufficiently advanced to carry them on.

Mr. James M. Barnard has devoted some time to the study of the Echinoderms, especially those brought home by the North Pacific Exploring Expedition. Mr. Clark has made a special study of the Medusæ and their embryology. Mr. Cooke has studied the families of Paguridæ and Squillidæ among the Crustacea, and has made a special trip to Para, for the purpose of collecting the animals of that region. Mr. Foley has been occupied in investigations relative to the domesticated animals. Mr. Hyatt has made a study of the Unionidæ, and in connection with his investigations, has visited the Kentucky River, for the purpose of identifying, if possible, the species described by Rafinesque from that region, and also to study living specimens of a much greater number of species than could be obtained in Cambridge. Mr. Hyatt has also studied the fossil Brachiopods in relation to the living types of that order. Mr. Lyman has been engaged in preparing a monograph of the Ophiuridæ, which is now nearly ready for publication. Mr. Morse has given his attention principally to the Bryozoa, and to several other groups of Mollusks. Mr. Ordway has arranged the Crustacea, and studied especially several families of that class.

Mr. Putnam has been occupied in arranging the collection of Fishes, and in the special study of the Etheostomoids and the Balistidæ. Mr. Scudder has spent the year in a special study of the family of Sciænoids among the Fishes, and in the collection and study of Insects injurious to vegetation, in connection with the third edition of Harris's work, about to be published by the State, under the general superintendence of the Secretary of the Board of Agriculture. Mr. Shaler, during the greater part of the year, has been studying the general relations of the Vertebrates as shown by the skeleton, and has commenced a special study of the family of Pleuronectidæ in the class of Fishes. Mr. Verrill has arranged the corals, and has made a special

study of the Embryology of the class of Birds. To aid in the latter purpose, he passed the summer on the island of Grand Menan. Dr. Wheatland has studied the Siluridæ with especial reference to their anatomy, and also for the purpose of preparing a monograph upon that family of Fishes.

Special Faunæ.

Under this head I propose to give a short statement of the larger and special collections received during the past year, from different parts of the world.

EAST INDIES.

Captain W. H. A. Putnam, of the ship *Andes* of Boston, has made for the Museum special collections of great importance at Singapore, Penang, and the island of Ceylon. At Colombo, he procured about 275 specimens of fishes, 25 of reptiles, 3 of birds, 2 of insects, 18 of crustacea, 8 of mollusks. At Singapore, 200 specimens of fishes, 2 of reptiles, 2 of birds, 12 of mollusks, and 250 of crustacea. At Penang, 100 specimens of fishes, 27 of reptiles, 100 of crustacea, and 2 living pigeons. In the Straits of Malacca, 650 specimens of coral, and 100 of gorgonia. This collection is of the greatest value, especially for this country, where so few specimens from the East Indies have thus far been obtained. Too much praise cannot be given to Captain Putnam for the manner in which he made this large collection during the short time he remained near the shore. I take pleasure in adding that Captain Putnam is now upon another voyage to the East Indies, prepared with three times the number of cans he had upon his last voyage, which he is confident of filling.

FAYAL.

Miss O. Dabney, of Fayal, has presented to the Museum a large number of specimens from all classes of the animal kingdom, which she has collected on the islands of Fayal and Pico. These are of great value, as showing that the Fauna of Fayal nearly approaches that of Europe and the Mediterranean. To Captain Edward Burke, of the bark *Azor*, we are indebted for his kindness in taking care of this collection free of charge.

SANDWICH ISLANDS.

The Museum has, by the aid and liberality of Mr. James M. Barnard, been able to employ Mr. A. Garrett at the Sandwich Islands, for the last two years, in making as complete a collection as possible of the animals of that group of islands. He has forwarded to the Museum a vast number of specimens of all classes of the animal kingdom. This gentleman possesses great skill in the art of collecting, and has added very much to the value of his collections by the admirable colored drawings he has made from life of the different animals he has collected. His long residence in the islands has well qualified him for his task.

SOUTH AMERICA.

Captain Samuel G. Brooks, through Mr. James M. Barnard, has made a special collection of Fishes on the Rio Grande, which have proved very rich in Characini and Siluridæ. Mr. Caleb Cooke has just returned from a trip to Para, in Brazil, and has presented to the Museum a number of specimens of fishes, reptiles, and crustacea; but owing to his being there in the dry season, he was unable to procure as many specimens as he would have done had his visit been earlier.

WEST INDIES.

From Dr. D. F. Weinland, the Museum has purchased the large collection made by him at the island of Hayti. We have also received a large number of Haytian specimens from Mr. Edward Habich of Boston, and Mr. Albert Hilchenbach, U. S. Consul at Gonaives. Lieut. Samuel R. Knox, U. S. N., has presented to the Museum a large number of Fishes, Reptiles, and Mollusks, from the island of Sombrero.

GRAND MENAN ISLAND.

Mr. A. E. Verrill has visited Grand Menan to collect eggs of birds for embryological study. In this he was very successful, having procured more than 2,000 eggs, of many species, in every stage of development. As he spent the whole summer on this island, he also obtained numerous specimens from all the classes of the animal kingdom, and prepared a large number of very fine skeletons of birds and fishes, by placing the fresh specimens under sea-weed near low-water

mark, where, in one or two tides, they were converted into the most perfect skeletons by the many small crustacea which are very numerous at that place.

PACIFIC COAST OF AMERICA.

From the region included between the Gulf of Georgia and Panama, we have received very large and most valuable collections from Mr. T. G. Cary, of San Francisco; from Capt. Watkins, of Panama, and Alex. A. R. Agassiz, of the United States Coast Survey. To Mr. Cary the Museum is indebted for a great many thousand fishes, reptiles, mollusks, crustacea, and echinoderms from San Francisco Bay, which he has collected himself during several successive years. It is, indeed, to his exertions chiefly that our Museum is indebted for the magnificent collection of specimens it now possesses from California. From Capt. Watkins we have received a number of very rare and new species of fishes, taken in the Bay of Panama. Mr. A. Agassiz has been able to procure a great number of specimens of all classes of animals from the Gulf of Georgia, and along the Pacific coast of Mexico, and has presented the first corals that we have received from the Western Coast of America. He has also been very successful in preserving specimens of médusæ in alcohol.

Mr. Cary and Mr. Agassiz, among their other specimens, have sent us several thousand of the viviparous fishes of the Western Coast. In connection with these collections, we take pleasure in acknowledging the liberality of Messrs. Wells, Fargo, & Co., and of the Pacific Mail Company, who have forwarded these large collections to Cambridge free of charge.

KENTUCKY RIVER.

Mr. A. Hyatt spent the summer months very successfully on the Kentucky River, for the purpose of collecting and studying the Unios of that region, several thousand specimens of which, in alcohol, he has presented to the Museum. Mr. Hyatt also devoted much time to other departments of Zoölogy, and has presented the valuable results of his labors to the Museum.

To the large collections made on the Kentucky River he has added a large number of the fishes, crustacea, and insects from the Mammoth Cave in Kentucky, and also a very large series of fossils from Cincinnati and its vicinity.

To Dr. Wood of Boston, and Dr. Saunders of Salem, veterinary surgeons, the Museum is under great obligations for their interest in the department of the Museum relating to the domesticated animals. Both of these gentlemen are exerting themselves to secure for us the animals that die under their charge, and also in obtaining the embryos of our domesticated animals. Dr. Loring of Salem, and Mr. William Bond of Boston, have also contributed much to this part of our collection.

I have not thought it desirable in this report to enumerate all the invoices received by the Museum during this year, as they are too numerous to be registered here singly. But all the specimens exhibited in the Museum are provided with a label indicating the name of the donor or the source whence they were obtained. This kind of acknowledgment, equally attached to all the specimens received in former years, is due to the interest shown in our Museum by a large number of individuals who, having only had the opportunity of securing a few specimens, have yet taken the trouble of forwarding them, while at the same time the large contributors, entitled to the same distinction, may be gratified to find that their donations are distributed upon almost every shelf throughout the Museum. This plan has, moreover, the advantage of being public and permanent, while a report like this is not likely to be read by many. I would, however, add that the Museum has received specimens by presentations from one hundred and thirty different persons, and by purchase with the Gray Fund, from eight others, and by purchase with the Subscription Fund of 1859, from ten more. The number of boxes and barrels received amounts to 239.

L. AGASSIZ.

CAMBRIDGE, 25th January, 1860.

[D.]

REPORT

*Of the Committee on the Museum, presented to the Board of Trustees
in October, 1860.*

By a statement of the Treasurer, dated October 1, 1860, it appears that there remains in his hands an unexpended balance of two thousand seven hundred and eleven dollars and eleven cents, and a subscription of five hundred dollars not yet collected, because the gentleman who made it is out of the country. The whole amounts to \$3,211.11, and that sum is not only over and above all expenses heretofore incurred under the orders of this Board, but over and above all appropriations made by it, which are yet to be satisfied. It is therefore a sum of money which remains absolutely at the disposition of the Trustees, and it is all that so remains.

On this sum, however, one claim already exists. By the fourth clause of the Agreement between the President and Fellows of Harvard College and the Trustees of the Museum, it is provided, That the duty of taking care of the buildings and causing them to be kept in repair shall devolve upon and be vested in the Trustees; this duty including, as your Committee understand, heating the premises in question that need it in winter, and otherwise caring for them, and protecting the collections they may contain.

Slight repairs, or changes and alterations, have already been needed and paid for. Others will, in all probability, be required, and remedies may be demanded for imperfections not yet known to exist.

Besides this claim under a contract, other claims may arise, which, as long as they have resources left at their disposal, the Trustees may feel hardly less bound to satisfy, — some already foreseen, others probable. The amount remaining in hand is not, however, greater than will be soon needed, with whatsoever economy it may be administered; and yet the Trustees feel bound to reserve a portion of it, lest they should want it to satisfy their contract with the President and Fellows of the College, before other funds come into their hands.

Under these circumstances, your Committee recommend that no

further appropriations be made by the Trustees, except for the purposes already indicated, until from some other source they receive the needful means; and they believe that none can be made from any source now known to them, before the first of November, eighteen hundred and sixty-one.

The Committee further desire to express their earnest hope that the munificent grant from the public treasury of the Commonwealth may be funded, so that its income only shall be spent from year to year. The reason is obvious. Without a sufficient and regular income, any such institution as the Museum must soon fail to keep up with the progress of knowledge or fulfil the great and beneficent purposes for which it was founded.

Your Committee do not make these suggestions without regret. But the duty seems imperative. Nothing, perhaps, would be more injurious to the interests which it is the especial office of the Trustees to protect, than a debt, and your Committee hope that the Trustees will never contract or sanction one.

But while your Committee do not wish to conceal the fact that the funds at the disposition of the Trustees are nearly exhausted, or their trust that a debt will never be created, they, at the same time, wish to have it understood, that, in their judgment, whatever has been done with the moneys heretofore appropriated by the Trustees, has been done substantially and with good economy, and that not a dollar has been spent, except for the precise purposes contemplated and specified by the liberal donors of the fund. The building, which was the main object of their contributions, has been erected in the most solid and satisfactory manner, at less than the first appropriation made for it, and is now found so well fitted for its purposes, that Professor Agassiz, after his recent examination of the principal Museums in Europe, declares that he would not alter it in any respect, if he could do so by a wish. The ample cases that line the rooms, and the tables and other articles of furniture, have also been bought, thus far, for less than the original appropriation, and are as satisfactory to him as the building is. And all the great collections in Zoölogy and Paleontology which have been so generously presented by Professor Agassiz himself, or obtained by his exertions and influence from other sources, have been systematically arranged and

labelled ; and, so far as room has been provided for them, they are now all in scientific order, and about to be opened, at all times, to every citizen of the Commonwealth, free of charge. Even the large remainder, which cannot be exhibited and employed for the purposes of instruction, have yet all been carefully examined and prepared for use, and are all classified and labelled ; and, so far as an excellent fire-proof building can do it, they are all now, like the rest of the collections, placed beyond the reach of injury by fire.

This, however, is the whole that it has thus far been possible to do in order to establish and constitute a Museum ; and your Committee desire, as an act of justice, to add, that it has all been done under the advice and superintendence of Professor Agassiz himself, and that to his unwearied labors, and those of the corps of excellent and zealous assistants whom he has trained and directed, is due the possibility of opening the Museum to the public, for purposes of instruction, in the extraordinarily short space of seventeen months from the day when the first sod for its foundation was, under the happiest auspices, turned by the governor of the Commonwealth.

But although much more has been done than the Trustees, or, it is believed, any of the friends of the institution originally supposed could be done in so short a time, and with the means afforded to do it, still it is plain that only a fraction of the work contemplated has been accomplished, just as it is plain that only a fraction of the building designed for a Museum has yet been erected. Specimens, equal at least in number to those which are already arranged, and certainly of not less scientific value and significance, are packed away in boxes and casks ; all, indeed, examined and prepared, all scientifically classed and labelled, but all crowded into the cellars and attic of the present building, and useless for purposes of instruction, from want of means and room to exhibit and explain them. The various expenses of the institution, including salaries, have been going on since the first of September, without any appropriation to defray them, and have been met by the private resources of Professor Agassiz. The institution, in fact, since that date, has been left to depend on his personal exertions and self-sacrificing spirit ; and even if the income from the State grant were at this moment available, — which it cannot be until after August next, when the first instalment of it will be payable, — it

would neither erect the building that is wanted, nor furnish the materials now needed to preserve and exhibit the specimens to be placed in it, nor make the institution generally what from the first it was designed to be ; purposes for which the resources of Mr. Gray's Fund are equally inadequate, since no part of them can be appropriated either to buildings or to salaries.

That such a public and important institution ought not to be thus left on the shoulders of one man — and one, too, who possesses only what he earns by scientific labors which few men can perform, and no other man would perform for such a purpose — is plain. That even he cannot long bear its burden is equally plain. Your Committee would gladly suggest a speedy remedy for this state of things, if they could. But they cannot. The obvious one of a fresh appeal to the liberality of the Commonwealth or of individuals, they conceive would be unwise and vain, — if not, on other grounds, unjustifiable, — since the appeal so recently made has been answered with such promptness and munificence. Still they do not despair. They do not believe that an undertaking so great, and so intimately connected with the public instruction and the general advancement of this community, will fail of its end for want of means to reach it. The prosperity of the country and the acknowledged perception of its position relatively to the other civilized countries of the world forbid such fears.

The result of the whole matter, therefore, as it now stands, is :— that on the thirteenth day of November the Trustees are to open for the public service, a Museum of Comparative Zoölogy in Cambridge, — already raised so as to be the ninth or tenth in the world, which has been begun and thus far successfully carried on with the purpose, always distinctly announced, of raising it higher and higher, until the Natural History of the United States shall be placed on a basis so independent, that its students shall no longer be sent abroad to be educated ; nor its specimens to be examined, compared, and arranged ; nor the papers of its ablest investigators to be appreciated and judged ; but that we shall have schools of our own, collections of our own, and our own scientific peerage. It is believed that the time for this change has come, and that it can be carried through by Institutions sufficient to render those who devote themselves to the pursuit of science, independent of the great institutions of Europe, and that it can be carried through in no other way.

So great a cause your Committee do not believe is destined to fail; and in this persuasion, they submit it to the consideration of the wise, the prosperous, and the patriotic of their countrymen.

In conformity with the recommendations in the preceding report, your Committee subjoin two resolutions for the action of the Trustees.

All which is respectfully submitted,

GEORGE TICKNOR.

JACOB BIGELOW:

WILLIAM GRAY.

COUNCIL CHAMBER, BOSTON, October 31, 1860.

First. *Resolved*, That the Treasurer of this Corporation pay the written drafts of the Faculty of the Museum of Comparative Zoölogy, as they may, from time to time, be duly certified to him, to an amount not exceeding in the aggregate two thousand two hundred dollars, to be expended under the direction of the same Faculty for repairs and care of the Buildings, including fuel, and for current expenses, until November the first, 1861; previously to which date no further appropriation whatever, on account of the Museum, can be made by this Board.

Second. *Whereas*, The first instalment of the grant by the Commonwealth to the Trustees of the Museum of Comparative Zoölogy will be payable on the first day of August next:

And whereas, The Trustees regard the disposition of this bounty of the State with peculiar interest and solicitude, and believe that the growth and permanent prosperity of the Museum will depend, in a large measure, upon the use which is made of that bounty:

And whereas, The Trustees have a deep conviction that no such Institution can live and thrive without a constant annual income for its support and increase; and that, without the guaranty of its continued usefulness which such income would give, no large donations from the liberal and wise can be looked for: Therefore,

Be it Resolved, unanimously, by this Board, that the whole amount of the principal of the grant by the Commonwealth shall be invested, from time to time, when received, under the direction of the Committee on Finance, and the same shall remain and continue a Permanent Fund, and that the income only of such Fund shall be expended.

[E.]

REPORT

Of the Director of the Museum of Comparative Zoölogy, for the Year 1860, submitted to the Board of Trustees at their Meeting of January 30th, 1861.

GENTLEMEN, — Your Committees on Finance and on the Museum have lately made you acquainted with the general condition of our institution. It remains for me now to inform you of what has been done in the Museum to advance its arrangement, to preserve its contents, to increase its collections, and to render it as useful as possible to special students of Natural History, to the students of the University generally, and to the public at large.

From the statements made on the day of the Inauguration of the Museum, you already know that the collections are so far arranged as to have been rendered accessible to the public in all the rooms which, in the building thus far erected, are destined to their exhibition. Since the Museum has been opened to the public, however, much has been done to render the specimens more instructive, by labelling as many of them as could be furnished with labels during this time, and this work will go on steadily and uninterruptedly till the whole is accurately labelled.

As I consider the most careful criticism in identifying the specimens indispensable, and since the character of the Museum as a scientific establishment will depend chiefly upon the care bestowed on this part of its arrangement, it is impossible that the labelling should go on as fast as might be desired by those who would only seek for general information in visiting the establishment. In order, however, to meet all reasonable expectations, I shall do my best to have provisional labels attached to those specimens of which the critical identification would require too much time at the present moment.

The work which has to be done in this arrangement is very varied, the specimens passing through many hands before they can be properly exhibited. That I may do justice to all those who have been connected with me in this work, allow me to state briefly what has been the share of each.

In order to give precision to every part of the work in the Museum, it has been so divided that while the students receive general instruction in all the branches of Zoölogy, every individual temporarily connected with the institution is intrusted with the care of some special department, in which he may acquire the most minute information, frequently exceeding that which I may have myself, while I constantly superintend all the operations in such a manner as to lead to a general, systematic result. The Vertebrates have been put in order by Mr. Putnam, Mr. Verrill, and Mr. Foley; the Articulates by Mr. Scudder, Mr. Ordway, and my son, A. Agassiz; the Mollusks by Mr. Hyatt, Mr. Morse, and Mr. Shaler; the Radiates by Mr. Lyman, Mr. Verrill, and my son; while Mr. Clark has taken care of the embryological preparations. Mr. Hansen has been employed in the work, labelling and hunting up the references for labelling; Mr. Gugenheim has been chiefly engaged in making skeletons, and for a few months past I have obtained the assistance of Mr. Bartlett in the arrangement of our land and fresh-water shells. There are three new-comers in the establishment who have not yet taken a definite part in the arrangement of the collection. Although only a part of their work is thus far on exhibition, I have derived essential assistance for the future improvement of the Museum from the untiring and faithful exertions of Mr. Glen in making minute preparations to illustrate the structure of the hard parts of animals, and from the skill with which Mr. Burkhardt is preparing diagrams for the illustration of those soft parts which cannot be satisfactorily preserved for exhibition.

I may add also that my son is intrusted with the care and distribution of the specimens received and with the superintendence of the current business.

And now, gentlemen, let me state that, unless this corps of workers, which consists, with the exception of one or two volunteers, of young men who have to work for their daily bread, can be retained in their present connection with the Museum, our establishment must necessarily come to a stand-still, and yet you are aware that at our last business meeting, it was ascertained that there are no means on hand to meet these exigencies. For the present, three of our young men are provided for by the liberality of a member of this board, and a salary for the agent of the Museum has been secured by another

friend of the institution. But there remain eight faithful and hard workers for whom no provision is made.

I have cheerfully coincided with the measures taken at our last meeting to secure the permanence of our Museum by funding its present resources, and to establish it permanently on a foundation which in future years will render its operations easy. But I deem it my duty now to inform you of the deplorable condition in which those measures have left me for the present, hoping that your wisdom may find means to relieve me as far as possible from the burden I have assumed, for the present, of carrying on the whole work of the establishment with my own means. I have done this, unwilling to renounce the hope of completing the work we have begun, and fearing that if the thread were once broken, out of which all this scientific activity has been woven, it might never be knit together again. To prevent the suspension of the work was for me a necessity that you will easily appreciate. The operations through which the Museum can be enlarged, require, like all extensive industrial enterprises, a long preparation, and can only be matured by a slow progress. Before the funding of the State grant was contemplated, I had laid out arrangements with Naturalists in all parts of the world, with the principal Museums of Europe, and with individuals deeply interested in some specialty of Natural History, to obtain from them collections by exchanges and otherwise, with a view to the rapid increase of our Museum. These applications have been very liberally answered. I have actually received most valuable collections, and others are on their way to Cambridge, for which no other returns are expected except duplicates from our stores, and these returns must be made, whatever may be the sacrifices forced upon me to render these stores freely accessible. But here lies the difficulty of the case. The most valuable things I have to give are among the alcoholic specimens which are not yet assorted, or which, if assorted, are not yet divided off in such a manner as to enable me to dispose of that which it is not necessary to retain as part of our collection. To make the case perfectly clear, allow me to enter into some details. When an invoice of specimens is received, the first step is to unpack them, ascertain their state of preservation, and divide them according to the classes to which they belong, so that each assistant may incorpo-

rate into the general collection the specimens belonging to his department. Now the amount of specimens thus far arranged and ready for incorporation and exhibition is already so large that, upon a rough estimate, I suppose it will require \$12,000 to separate the duplicates from the specimens which ought to be retained for the collection, and to put up the latter. All these specimens are safe for the moment in their present condition. Yet it would not be advisable to allow them to remain in their crowded state for another year; it is true they may stand such a delay, but it is also very probable that they would suffer from it. But this is not the worst. There are large numbers of packages which have not yet received even this first care, and the condition of which I have not even been able to ascertain from want of the necessary supplies. Upon an approximate estimation I would say, that, to provide for these, an outlay of from three thousand five hundred to four thousand dollars would be necessary. I doubt whether any Museum has received in the same time so large and such important accessions as ours, and if the means could be obtained for a proper disposition of all these treasures, such a step would have been made towards raising our Museum above the condition of others, that I have no doubt we could confidently look to the consummation of all our hopes in making this Museum one of the greatest in existence.

I am perfectly aware that this is not the time to make an appeal to the community for support. I will therefore not mention that, when these specimens are taken care of, it will sooner or later be indispensable to enlarge our building in order to exhibit them; I will not say that the amount of materials fit for publication which has been accumulating in the Museum would make volumes equal in scientific importance to any published by the learned societies or the governments of Europe. Time and the degree of interest shown by the whole community in our undertaking must decide the fate of these matters. But the perilous condition of part of the collection, if it should be allowed to remain for an indefinite time in its present state, is the point to which I felt bound to call your attention on this occasion.

Additions to the Museum during the past Year.

After these general remarks, allow me to submit to you more espe-

cially the account of the accessions to the Museum during the year 1860.

To the class of Mammalia, 280 specimens, representing 138 species, have been added, mostly from the Northeastern States and from California.

To the class of Birds, 1,836 specimens, representing 900 species, have been added, among which is a magnificent collection from Van Diemen's Land, presented by Mr. William Robertson of Hobart Town. The other accessions to this class are chiefly alcoholic specimens; but though still small, our collection of birds has already a great scientific value from the fact that it probably contains more alcoholic specimens, and no doubt a much larger number of young birds, than any other collection in existence.

To the class of Reptiles, about 1,100 specimens, representing 175 species, have been added, among which the most interesting were presented by Messrs. Cutting and Butler of the Aquarial Gardens in Boston, and others collected in California and the East Indies by my son and Captain Putnam.

To the class of Fishes, 9,000 specimens, representing about 1,420 species, have been added; so that at this moment our collection numbers about 4,000 species, to which must be added nearly a thousand specimens of fossil fishes recently purchased from the Gray Fund. The most interesting additions of living fishes consist of those collected at the Sandwich Islands by Mr. Garret, along our west coast by my son, at Pernambuco by Captain Brooks, at Zanzibar by Mr. George A. Cheney, at Fayal by Miss O. Dabney, in Liberia by Monsieur Duchailleux, at Hayti by our Consul, Mr. A. Hilchenbach, at Key West by Dr. Holder, in the East Indies by Captain W. H. A. Putnam, at Hobart Town, Van Diemen's Land, by Mr. William Robertson, in the Saskatchewan River and Lake Winnipeg by Mr. S. H. Scudder, at Panama by Captain Watkins, and in the Uruguay and Paraguay Rivers by Professor J. Wyman, not to speak of many minor contributions. The most extensive of these additions are those from the Pacific Ocean, collected by Mr. Garret and my son, from the East Indies by Captain Putnam, and from Tasmania by Mr. Robertson.

To the class of Insects have been added 19,853 specimens, representing 4,000 species, belonging to all the orders of the class. The most

valuable of these additions are the collection of European insects purchased from Dr. Imhoff with the Gray Fund, the insects of California, Acapulco, and Panama, collected by my son, and the collection made on the Saskatchewan River by Mr. Scudder, and also the insects collected at Woburn by Mr. Shute, and in Maryland by Mr. R. Stratton.

To the class of Crustacea, 3,641 specimens have been added, representing 496 species, the most important of which are those collected at the Sandwich Islands by Mr. Garret, at Hobart Town by Mr. Robertson, on the Pacific Coast of North America by my son, and in Florida by Mr. Theodore Lyman.

Since the representatives of the class of Annelids and Helminths have not yet been arranged at all, I am unable to say what additions have been made to these classes.

The Mollusks have received extraordinary additions amounting to not less than 50,000 specimens, representing 3,000 species at least. An invaluable addition consists of a large collection presented by the Smithsonian Institution, besides a large collection purchased from Mr. John Bartlett, and another from Mr. E. S. Morse, and also the specimens collected by my son on the west coast of North America, and at the Sandwich Islands by Mr. Garret.

The class of Echinoderms has been increased by 3,500 specimens, representing 92 species, the most valuable being those collected at Acapulco by Mr. Van Brunt, at Zanzibar by Mr. Cheney, at Fayal by Miss Dabney, at the Sandwich Islands by Mr. Garret, and on the west coast of our continent by my son, besides which very valuable specimens have been collected on our own coast by the students of the Museum. By exchange we have also obtained very important types of this class from the Museum at Copenhagen, and from the Smithsonian Institution.

To the class of Corals have been added 2,130 specimens, representing 666 species. The most extensive addition to this class is a collection of fossil corals bought with the Gray Fund, next to this, the collection of corals from the East Indies by Captain Putnam, and besides these, the specimens collected by my son on the Pacific Coast. I may add that Mr. T. G. Cary of San Francisco has largely contributed to the invoices made by my son, from the Pacific Ocean, and that there is still unopened a large invoice from him.

As a matter of scientific interest, I would state that our collection of Acalephs would surprise most naturalists, who, under the belief that Medusæ cannot be preserved, have neglected to collect them. There is quite a variety of them in our Museum, in a very satisfactory state of preservation; some of which were received from the East Indies, through Captain Putnam, and others from the Pacific Coast, through my son.

From the foregoing enumeration, it appears that during the past year not less than 91,000 specimens, representing 10,884 species, have been added to the Museum; and this number is probably to be increased when the packages only partially examined shall have received the proper attention.

This is certainly a great result, the importance of which may be appreciated if I state that less than a century ago, when Linnæus published the twelfth edition of his *Systema Naturæ*, the whole number of animals then known by him, from all parts of the world, did not amount to 8,000.

In this connection I would mention that the scientific value of the work done in the Museum, with the view of identifying and labelling the specimens, is as great as that of the specimens themselves, and that nothing could more enhance the scientific importance of the establishment itself in the eyes of the scientific world, than the publication of an illustrated catalogue of its contents, with systematic descriptions of the new species. The number of drawings made from fresh specimens, by those who have collected them, is so great, and of such scientific value, that if they could be published also, they would no doubt be considered as among the most important contributions to science.

A few remarks upon the policy I have followed in the management of the Museum may not be out of place in this Report.

Considering that the Gray donation was made with the special object of founding a Museum of Comparative Zoölogy at Cambridge, I have thought it my duty at all times to devote the resources derived from that Fund to the enlargement of the collections; for it is by reserving in that way to a special object our resources as they are increasing that we may also hope to attain our object and found a great Museum.

To accomplish this aim, it is indispensable to explore such parts of the world as have not yet been scientifically surveyed. But as I do not feel justified in applying means which have been appropriated for more special purposes to such explorations, I should have been unable to accomplish anything in that direction but for the liberal assistance of Mr. James M. Barnard, who has generously advanced the means for this object, with no other prospect than that of aiding the Museum through its infancy, until the time may come when provision may be made for such expenditures.

Considered as an Educational Institution, the Museum has yielded all that could be expected of it. Since the day of the Inauguration, when it was opened to the public, we have had large numbers of visitors, and I confess I have been surprised to see how large a proportion of them are evidently examining the specimens with interest and intelligence, and not vaguely gazing at the cases. I have often wished on this account that it were possible, on certain days at least, to direct the attention of visitors to the most instructive part of the collection, and to give them some guidance and information. The want of a systematic catalogue for this purpose begins to be heavily felt. But what cannot be done for casual visitors is done for the regular students who attend the courses of lectures delivered in the Museum. These lectures are of two kinds, those for the students of the Zoölogical department of the Scientific School, and those open to the undergraduates of Harvard College and to teachers of the State. It is very gratifying to me to be able to report that the latter class of hearers has been unexpectedly large, an average of 120 teachers of both sexes having been present at the course on Geology just concluded.

The other part of my instruction is given exclusively to the students of the Scientific School, who devote themselves especially to the study of Natural History. The attendance is of course limited in numbers, fourteen students having been present during the past year. But the usefulness of the establishment is undoubtedly extending in the right direction. As evidence of this, I would only mention the fact that Professors from other Colleges annually attend our courses.

L. AGASSIZ.

CAMBRIDGE, 30th January, 1861.

[F.]

TRUSTEES OF THE MUSEUM OF COMPARATIVE ZOOLOGY.
1861.

THE GOVERNOR OF THE COMMONWEALTH,

JOHN A. ANDREW.

THE LIEUTENANT-GOVERNOR,

JOHN Z. GOODRICH.

THE PRESIDENT OF THE SENATE,

WILLIAM CLAFLIN.

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES,

JOHN A. GOODWIN.

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,

JAMES WALKER,

GEORGE TICKNOR,

NATHANIEL THAYER,

SAMUEL HOOPER,

SAMUEL G. WARD,

JAMES LAWRENCE.

OFFICERS OF THE MUSEUM OF COMPARATIVE ZOOLOGY FOR
1861.His Excellency, JOHN A. ANDREW, Governor of the Commonwealth,
*President.*WILLIAM GRAY, *Secretary.*SAMUEL G. WARD, *Treasurer.*LOUIS AGASSIZ, *Director of the Museum.*SAMUEL HOOPER, JOSEPH WHITE, NATHANIEL THAYER, JAMES
LAWRENCE, *Committee on Finance.*GEORGE TICKNOR, LOUIS AGASSIZ, JACOB BIGELOW, WILLIAM GRAY,
Committee on the Museum.

ANNUAL REPORT

THE MINISTER

MUSEUM OF COMPARATIVE ZOOLOGY

THE REPORT ON THE MINISTERS

THE REPORT ON THE MINISTERS
OF THE DEPARTMENT OF THE INTERIOR
AND TERRITORIES

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