# FOURTH ANNUAL REPORT

OF THE TRUSTEES

OF THE

# PEABODY MUSEUM

OF

## AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, MAY 15, 1871,

BOSTON:
PRESS OF A. A. KINGMAN.
1871.

# FOURTH ANNUAL REPORT.

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To the President and Fellows of Harvard College:—

The Trustees of the Peabody Museum of American Archæology and Ethnology herewith respectfully communicate to the President and Fellows of Harvard College, as their Fourth Annual Report, the Reports of their Curator and Treasurer for the year ending in January last.

ROBERT C. WINTHROP.
CHARLES FRANCIS ADAMS.
STEPHEN SALISBURY.
ASA GRAY.
JEFFRIES WYMAN.
HENRY WHEATLAND.
GEO. PEABODY RUSSELL.

Cambridge, May 15, 1871.

# REPORT OF THE CURATOR.

The Curator respectfully presents to the Trustees of the Peabody Museum of American Archæology and Ethnology the following report on the additions to the collections, with observations on the crania and other parts of the skeletons of the aborigines obtained from the ancient mounds.

## I. Charles Hammond Collection.

This was made by the gentleman whose name it bears, and is derived almost exclusively from the towns of Chatham and Rochester, Cape Cod, only a few of the objects having been obtained at Nahant and other localities. It was presented to the Museum by Mr. Hammond's nephew, Samuel H. Russell, Esq., Nov. 30, 1870. The collection has an especial value from the limited area over which it was made, thus giving a good idea of the nature and variety of the implements of stone manufactured by the Indians in the region mentioned. The objects it contains may be enumerated as follows :—

A mortar of soap stone (steatite), a series of axes, chisels, gouges, adzes, mauls, pestles, grooved stones probably used as weights to nets, "sinkers," hammer stones, spear points and perforated stones. Besides these, comprising between eighty and ninety objects, there are nearly three hundred arrow points of a very great variety of patterns and material. The "gouges," which are seldom found beyond the limits of the Eastern States, in this, as in other collections from New England are numerously represented. The "sinkers" are also in considerable numbers, and vary in weight from a few ounces to several pounds. The "pestles" are obviously of two kinds, one being used in the ordinary way for pounding in a mortar and the other, as appears from

the wearing away and polishing of the side, for crushing and grinding grain on a flat stone, and in this respect resembling the implement used in Central America and Mexico. Specimens from New England showing this are to be seen in the collections of the Peabody Academy of Sciences in Salem. From these implements it would seem that the process of grinding was more common than has generally been supposed.

## II. Christy Collection.

Mr. Augustus W. Franks, Conservator of the Christy Collection, in accordance with a wish expressed by the late founder, that a distribution of duplicates should be made among museums having kindred objects with the above institution, transferred to the curator, during a recent visit to London, a very valuable series of, in all, about one hundred and twenty-five objects. These consist of original specimens and casts of such from the celebrated rock shelters and cave dwellings at Les Eyzies, La Madelaine and Le Moustier in the department of Dordogne, France. The deposits in these localities were coeval with the period of the reindeer in Europe. The selection was made with the view of supplementing and making more complete the series from the same region, which the museum already possesses in the collection of M. de Mortillet.

The objects received consist of masses of breccia, from the floors of the caves, composed of the broken bones of the animals used as food, and of scales or chips of flint made in the manufacture of implements. These materials are mixed with a black earth, and all are cemented together by means of calcareous matter which has been deposited by infiltration. There are also implements made of bone and antler such as harpoon and spear points, awls, needles, etc., and pieces of the antler of the reindeer perforated with circular openings and variously ornamented with carvings. Lastly, there are numerous casts of pieces of bone with skilfully wrought ornaments and engravings representing many different kinds of animals, the species of most of which can be readily recognized.

Nearly all the objects coming from the French caves bear the label of C. Lartet, than which no better guarantee for their authenticity could be desired.

Besides the above specimens from France, there are other prehistoric objects of interest, including implements of stone from England,

and pieces of worked flint from Mt. Sinai and the Cape of Good Hope.

## III. Explorations in Tennessee.

The Rev. E. O. Dunning has continued, in behalf of the Museum, his explorations in Eastern Tennessee during the past year, and reports from him have been received that large collections have been made which will be forwarded at an early date. One box has been received containing crania from ancient mounds, chiefly Macbee Mound near Strawberry Plains, Jefferson Co., various implements and ornaments buried with the dead, also numerous implements of stone from other localites. Among the objects buried with the dead are drinking cups and large pear shaped ornaments, supposed to be worn as gorgets, made from the shell of the *Pyrula*, also beads made of a species of *Oliva*, and of drilled pieces of the columella of the *Strombus gigas*. The above were undoubtedly derived from the Gulf of Mexico, and go to increase the evidence already existing that traffic in marine shells or in objects made of them was carried on, on a large scale, between the natives living on the shores of the Gulf and those inhabiting the borders of the Mississippi and its tributaries, as well as the shores of the great lakes.

## IV. Explorations in Central America.

As was stated in the First Annual Report, Dr. Berendt, who at the time of its publication was about to embark for Central America, was authorized to make collections of such antiquities and ethnological objects as might be thought desirable for our museum. The commission was promptly attended to, but owing to some misunderstanding the boxes containing the results of his earliest labors were wrongly directed, and did not come into our possession until a few weeks since, when they were ascertained to be stored in the Custom House in New York. We have received eight boxes, containing about two hundred objects in terra cotta, consisting of vases, dishes, idols, etc., also specimens of the *matatés* or tables for grinding grain, and other implements of stone. The collection of terra cottas is extremely valuable, as showing the advanced state which the art of modelling in clay had reached among the ancient inhabitants of Central America. Some of the figures, if the pieces we have received

may be considered as an indication, were of life size. Still further results from Dr. Berendt's explorations are expected.

## V. Gifts.

In addition to the collections just described, the following gifts have been made to the Museum: —

Cast of a sculptured stone having a rude representation of a human face on the two sides. This was found by the donor on an old Indian camping ground near Wellfleet, Cape Cod, and is undoubtedly of Indian make. *Rev. B. F. DeCosta.*

A modern Indian vase from Guadalaxara, Mexico; fragments of ancient Indian pottery, from the Island of Sacraficios, Mexico, and a Moorish earthen lamp from Gibraltar. *Dr. Charles Martin, U. S. N.*

A collection of the bones of animals used as food, and other objects from the shell heaps at Hull's Cove, Mt. Desert, Me. *Dr. Samuel A. Greene.*

A collection of beads made of perforated discs of shell, of a species of Marginella used as beads, and portions of human bones, taken from the base of Big Mound at St. Louis, during excavations made in 1869. These objects are of a date coeval with the construction of the mound. Accompanying them is a communication from Prof. Nathaniel Holmes of the Dane Law School, giving the results of his own observations on Big Mound made several years since, and setting forth reasons for the supposition he then advocated that this mound was artificial and not natural as had been generally believed. *John F. Madison, Esq.*

A collection of shells and fragments of bones and pottery from the shell heaps of Damariscotta, Me. These were obtained by the donor in 1859 and were the first conclusive indications that the shell heaps were of Indian origin. *Prof. P. A. Chadbourne.*

Pieces of worked bone, a bone implement, and other objects from the shell-heaps of Mt. Desert, Me. *Prof. Alfred P. Rockwell.*

Cranium, also two tibiæ, of an Esquimo obtained by the donor from a grave at Rigolette, N. W. River, Hudson's Bay Territory, Labrador. *Edward L. Parks, Esq.*

A collection of the remains of animals used as food from the shell heaps on Georges River, Maine. *Cleveland Abbe, U. S. Coast Survey.*

A grooved stone, similar to those used by the Indians, and now used by the fishermen of the Island of Capri as weights to their nets, to show the existence of the use at the present time of stone implements analogous to to those used by the ancient races. *Prof. J. Wyman.*

Four grooved stones, similar to those used by the Indians. These were wrought by means of a piece of quartz held in the hand and used as a hammer, to show the effect of stone, as a tool, in working stone. *J. Wyman and M. Wyman, Jr.*

Two ancient Roman crania dug up in the presence of the donor. One of them is remarkable for its conical shape. *William J. Stillman, late U. S. Consul at Crete.*

An ancient stone tablet, with hieroglyphics. This was brought from Egypt by the late John Lowell, and presented by *John Amory Lowell, Esq.*

A stone chisel found on the banks of the Potomac and remarkable for its diminutive size, measuring only two inches in length. *Mr. Otto Pourtales.*

A pack of Indian cards, forty in number, used by the Ponto Apaches of Arizona. *Lieut. Duncan Sherman, U. S. Cavalry.*

Two card photographs of Indian pipes and other objects. *From J. H. Jenkins, Esq.*

Two photographs (stereoscopic) of Calchihuitls. *J. H. Lyman, Esq.*

## VI. Books and Pamphlets.

Antiquités Préhistoriques du Danemark. L'Age de la Pierre. Par A. P. Madsen. Copenhague, 1869. Folio. Plates.

Thorsbjerg Mosefund et Samlet Fund Fra Den Ældre Jernalder I Oldsagsamlingen I Flensborg. Beskrevet af Conr. Engelhardt. Kjöbenhavn, 1863. 4to. Plates.

Nydam Mosefund 1859–1863. Af Conr. Engelhardt. Kjöbenhavn, 1865. 4to. Plates.

Kragehul Mosefund 1751–1865, et Overgangsfund Mellem Den Ældre Jernalder Og Mellem-jernalderen. Af Conr. Engelhardt. Kjöbenhavn, 1867. 4to. Plates.

Fynske Mosefund, No. II. Vimose Funolet Af C. Engelhardt. Kjöbenhavn, 1869. 4to. Plates.

Memoires de la Société Royale des Antiquaires du Nord. Nouvelle Serie, 1867. Copenhague. 8vo. Plates.

The same. 1868.

Nordiske Oldsager I Det Kongelige Museum I Kjöbenhavn. Ordnede og forklarede af J. J. A. Worsae. Kjöbenhavn, 1859. 8vo. Plates.

Danske Mindesmærker, Udgivne Af En Forening. Kjöbenhavn, 1860–1868. 13 parts. Folio. Plates.

Illustreret Tidende. Kjöbenhavn, den 10 April, 1870. Containing an account of a Runic inscription by K. N. H. Petersen.

Gustav Klemms Cultur historische Sammlung und ibr Erwerb sur Begrundung Algemeinen Anthropologischen Museums. Mittwech den 29 December, 1869.

The above works were obtained by purchase.

Collections of the Minnesota Historical Society. Vol. III, pt. I. St. Paul, 1870. *From the Society.*

Forty-one pamphlets pertaining to various subjects connected with Archæology and Ethnology have been presented to the Museum by *Augustus W. Franks, Esq.*, Conservator of the Christy Collection.

## VII. Observations on Crania and other parts of the Skeleton.

*Crania.* During the year comparative measurements of the crania from Peru, presented by Mr. Squier, of those from the mounds of Kentucky, obtained by Mr. Lyon, and from the mounds of Florida by the curator, have been completed, as also comparative measurements of the pelvis of the mound skeletons. A general summary of the results is contained in the accompanying tables.

The *Peruvian* crania present the two modes of artificial distortion commonly seen, those from chulpas or burial towers and other places in the neighborhood of Lake Titicaca being lengthened, while those from nearly all the other localities are broadened and shortened by the flattening of the occiput. They are, on the whole, massive and heavy. Many of the measurements usually recorded in describing ordinary crania have been omitted, since they would in those under consideration depend upon the degree to which the distortion has been carried, and would therefore give artificial and not natural dimensions.

We find nothing in these crania which sustains the view once admitted, but afterwards abandoned, by Dr. Morton, and more recently revived by Mr. John H. Blake and Dr. Daniel Wilson, in regard to the existence of naturally long (dolichocephalic) Peruvian skulls. Dr. Wilson bases his belief in the existence of such upon some crania in the collection of the late Dr. J. C. Warren, which Mr. Blake brought from Peru. He thinks their forms must be natural, because, in crania artificially distorted to the extent that these are, "the retention of anything like the normal symmetrical proportions is impossible." We find, however, that the lengthened Peruvian crania in our collection showing unequivocal marks of circular pressure, are, contrary to Dr. Wilson's opinion, quite symmetrical. Circular pressure could hardly produce any other than a symmetrical change of form. Through the kindness of Dr. John Collins Warren, we have been able personally to examine the crania above referred to in Dr. Warren's collection, and have been led to adopt the view of Dr. J. Barnard Davis, based on Dr. Wilson's figures, viz., that the lengthening in the alleged doliohocephalic Puruvians is artificial, since the indications of circular pressure are obvious.

Although the crania from the several localities, as seen in Tables I — VII, show some differences as regards capacity, *e. g.*, those from Casma, Cajamaquilla, and Truxillo as compared with those from

Grand Chimu, Amacavilca and Pachicamac, yet in most other respects they are alike. The average capacity of the fifty-six crania measured agrees very closely with that indicated by Morton and Meigs, viz., 1230 c.c., or 75 cub. inches, which is considerably less than that of the barbarous tribes of America, and almost exactly that of the Australians and Hottentots as given by Morton and Meigs, and smaller than that derived from a larger number of measurements by Davis. Thus we have, in this particular, a race which has established a complex civil and religious polity, and made great progress in the useful and fine arts, as its pottery, textile fabrics, wrought metals, highways and aqueducts, colossal architectural structures and court of almost imperial splendor prove, on the same level as regards the quantity of brain, with a race whose social and religious conditions are among the most degraded exhibited by the human race.

All this goes to show and cannot be too much insisted upon, that the relative capacity of the skull is to be considered merely as an anatomical and not as a physiological characteristic, and unless the quality of the brain can be represented at the same time as the quantity, brain measurement cannot be assumed as an indication of the intellectual position of races any more than of individuals. From such results the question is very naturally forced upon us whether comparisons, based upon cranial measurements of capacity as generally made, are entitled to the value usually assigned them. Confined within narrower limits they may perhaps be of more importance. But even in this case the results are often contradictory. If the brains of Cuvier and Schiller were of the maximum size, so were those of three unknown individuals from the common cemeteries of Paris—while that of Dante was but slightly above the mean, and Byron's was probably even below it.

The collection of mound crania from *Kentucky* made by Mr. S. S. Lyon, under the joint patronage of the Smithsonian Institution and this Museum, is by far one of the most valuable hitherto brought together. A comparison of these crania with those of the other and later Indians, shows that they have certain marked peculiarities, though these are doubtless better appreciated when the two kinds are placed side by side, than from any tables of measurement or verbal descriptions.

The twenty-four crania measured (Table VIII) show a mean capacity of 1313 cub. cent., which is greater than that of the Peruvians, but less than that of the N. American Indians generally (viz., 1376 c. c., or

84 cub. inches). They differ also from those of the ordinary Indians in being lighter, less massive, in having the rough surface for muscular attachments less strongly marked. The top of the head shows a moderately angular or roof-shaped arrangement of the parietal bones and the sides a e vertical. In proportions they present a very considerable variation amongst themselves. Assuming the length of the skull to be 1,000, the breadth ranges from 0.712 to 0.950 of the length. The average proportion is 0.857, which places them in the short headed group. This result is influenced, but not to any great extent, by the fact that the crania have been somewhat distorted by a flattening of the occiput. In the majority this flattening is very slight, and is indicated by a nearly plane surface just above the protuberance, and which would not materially diminish the length of the skull. The position of the foramen magnum is quite far back. We have shown elsewhere that in the North American Indians generally, it is farther back than in the Negro and other races with which they have been compared. In the mound crania the distance of the anterior edge of the foramen magnum from the occiput is only 0.372 the long diameter of the skull. This position can be only partially due to distortion, since in the three skulls in which the foramen was farthest back the occiput was not in the least flattened.

Dividing the crania into two groups, according to the features which distinguish the sexes, the numbers of the two are about equal, and comparison of them shows a difference of 125 c. c. in favor of the males.

The separate bone at the apex of the occiput and known as the 'epactal," or "bone of the Incas," exists in a somewhat smaller proportion than in the series of Peruvian crania presented by Mr. Squier. It is certainly found more frequently in the mound than in other crania of N. America, and is a point of resemblance to the Peruvian not to be overlooked, though it may be purely accidental.

The crania from *Florida* were nearly all obtained from a single burial place near Shell Mound, a few miles from Cedar Keys. Shell Mound is an ancient Indian shell-heap of gigantic proportions, forming an amphitheatre, in some places rising to the height of twenty feet, and enclosing an acre of land now under cultivation. If one may judge from the immense quantity of shells brought together, it must have been inhabited for a long period of time, as the limited space around it uncovered with water could afford habitations for only a comparatively small population. The burial place was on a neighbor-

ing island separated from it by a narrow channel. In some parts the general surface did not indicate the presence of a cemetery, but a few graves had, however, been opened before our excavations were made. Nearly all the crania here described were from a small mound of sand, in which the dead were deposited without any definite order, and the only objects buried with them being oyster shells, fragments of pottery and drinking cups made of the shell of Pyrula. In some cases two or three oyster shells were the only objects, and in no instance was any thing made by the white man detected, such as glass beads, etc. The burials were all of the rudest kind. No indications of approximate age of the mound were found, nor could information with regard to its history be obtained. The trees growing upon the mound were none of them more than a half a century old. The bones were all greatly decayed by the destruction of the organic matter, and it was only with the greatest care that they could be removed without injury or even complete destruction. When dried they acquired greater firmness but could only be preserved and handled after being immersed in gelatine.

The capacity of the skulls (Table IX) is 1375 c. c., nearly 84 cub. inches, and is greater than that of the mound crania. The foramen magnum is quite far back, its index being .374, very nearly the same as that of the crania just referred to, but there are no signs whatever of distortion. They are remarkable for massiveness and thickness. The average thickness through the parietal bones in eight of them amounting to 10.5 m. m., or 0.42 inch, or almost double the usual thickness, and in this respect they contrast very strikingly with skulls from the mounds, as they also do in the general roughness of the surfaces for muscular attachments on the hinder part of the head.

The skulls are quite heavy, but in consequence of the destruction of the bones of the face in most of them, the whole weight could be had in a single instance only. This happens to be the heaviest of the series, weighing 995 grams, and notwithstanding the loss of its organic matter, is heavier than any of the three hundred skulls of various races in our collection. The next heaviest are those of a Negro weighing 975 grams, of a Hawaiian islander weighing 845 grams (the average of 21 crania being 640 grams.), and of a Tsuktshi, weighing 860 grms.

## TABLE I.

SIX CRANIA OF AYMARRAS FROM BURIAL TOWERS OR CHULPAS, NEAR LAKE TITICACA.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum | 1445 | 490 | 173 | 136 | 154 | 93 | | | | 284 | 358 | 386 | 130 | 128 | 127 | 144 |
| Mean | 1292 | 460.3 | 160 | 128.5 | 138.7 | 87.2 | .807 | 868 | | 266.85 | 309 | 368 | 126.5 | 118.8 | 118 | 129.5 |
| Minimum | 1155 | 432 | 148 | 125 | 130 | 81 | | | | 257 | 326 | 348 | 120 | 108 | 106 | 124 |
| Range | 290 | 58 | 25 | 11 | 24 | 12 | | | | 27 | 32 | 38 | 10 | 20 | 21 | 20 |



## TABLE II.

FOURTEEN CRANIA FROM CASMA.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum | 1455 | 482 | 171 | 156 | 140 | 97 | | | | 295 | 352 | 362 | 123 | 129 | 145 | 143 |
| Mean | 1254 | 471.8 | 154 | 146 | 128.6 | 91.4 | 948 | 835 | | 276.3 | 336.2 | 337 | 116 | 112.3 | 107.5 | 130.3 |
| Minimum | 1050 | 450 | 143 | 130 | 118 | 82 | | | | 265 | 305 | 308 | 105 | 90 | 93 | 121 |
| Range | 405 | 32 | 28 | 26 | 22 | 15 | | | | 30 | 47 | 54 | 18 | 39 | 52 | 22 |

## TABLE III.

### SIXTEEN CRANIA FROM AMACAVILCA.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Heigth. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Maximum** | 1320 | 491 | 159 | 149 | 134 | 100 | | | | 296 | 338 | 344 | 122 | 112 | 124 | 141 |
| **Mean** | 1176.2 | 460.3 | 149.7 | 144.1 | 129 | 92.4 | 962 | 861 | | 276.4 | 324.5 | 321.7 | 111.5 | 105.1 | 106.6 | 127.5 |
| **Minimum** | 1055 | 440 | 144 | 136 | 118 | 88 | | | | 255 | 303 | 300 | 102 | 87 | 97 | 99 |
| **Range** | 265 | 51 | 15 | 13 | 16 | 12 | | | | 41 | 35 | 44 | 20 | 25 | 27 | 42 |



## TABLE IV.

### SEVEN CRANIA FROM GRAND CHIMU.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Maximum** | 1460 | 512 | 165 | 168 | 126 | 107 | | | | 305 | 357 | 350 | 128 | 119 | 115 | 143 |
| **Mean** | 1094.28 | 474.85 | 153.71 | 149.28 | 123.85 | 94 | 964 | 805 | | 279.71 | 331 | 316.57 | 114.57 | 108 | 108.14 | 131 |
| **Minimum** | 1065 | 440 | 137 | 131 | 117 | 83 | | | | 261 | 305 | 309 | 105 | 94 | 95 | 104 |
| **Range** | 395 | 72 | 28 | 37 | 9 | 24 | | | | 44 | 56 | 14 | 23 | 25 | 20 | 39 |

## TABLE V.

FOUR CRANIA FROM PACHICAMAC.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of [illegible]. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum | 1365 | 500 | 164 | 150 | 131 | 98 | | | | 294 | 331 | 342 | 120 | 117 | 126 | 140 |
| Mean | 1195 | 484 | 158.5 | 145.4 | 127.5 | 92.5 | 923 | 804 | | 281.5 | 326.75 | 336.5 | 118 | 111.25 | 113 | 136.33 |
| Minimum | 1035 | 472 | 155 | 142 | 119 | 83 | | | | 267 | 315 | 327 | 114 | 109 | 103 | 129 |
| Range | 330 | 28 | 9 | 8 | 12 | 15 | | | | 27 | 16 | 15 | 6 | 8 | 23 | 11 |

## TABLE VI.

FIVE CRANIA FROM CAJAMARQUILLA.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum | 1410 | 490 | 170 | 142 | 131 | 93 | | | | 287 | 332 | 361 | 125 | 120 | 119 | 139 |
| Mean | 1268.75 | 478.6 | 161.4 | 138.2 | 127 | 91 | 556 | 786 | | 278 | 322.6 | 347 | 117.4 | 115.4 | 113 | 122.8 |
| Minimum | 1155 | 459 | 150 | 136 | 125 | 88 | | | | 268 | 315 | 330 | 109 | 111 | 98 | 91 |
| Range | 255 | 31 | 20 | 6 | 6 | 5 | | | | 19 | 17 | 31 | 16 | 9 | 21 | 48 |

## TABLE VII.

FOUR CRANIA FROM TRUXILLO.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Occipital Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum | 1325 | 500 | 177 | 146 | 135 | 95 | | | | 294 | 330 | | 359 | 119 | 123 | 125 | |
| Mean | 1236 | 482.7 | 158.5 | 141.7 | 126.7 | 93 | 890 | 793 | | 280 | 326.2 | | 341.25 | 116.75 | 116 | 106.25 | |
| Minimum | 1135 | 473 | 150 | 132 | 117 | 90 | | | | 275 | 321 | | 324 | 114 | 110 | 195 | |
| Range | 190 | 27 | 27 | 14 | 18 | 5 | | | | 19 | 9 | | 35 | 5 | 13 | 20 | |

## TABLE VIII.

THIRTY-EIGHT CRANIA FROM A MOUND IN KENTUCKY.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Occipital Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *24 | | 37 | 38 | 36 | | | | | 38 | 38 | 36 | 29 | 38 | 36 | 29 | 33 |
| Maximum | 1540 | 512 | 179 | 159 | 142 | 103 | 950 | 895 | 451 | 317 | 350 | 259 | 367 | 131 | 127 | 130 | 15.1 |
| Mean | 1313.33 | 493 | 165.4 | 142.28 | 132 | 92.7 | 857 | 769 | 472 | 280.9 | 315.6 | 230.66 | 344.6 | 119.4 | 118.14 | 108.8 | 133 |
| Minimum | 1130 | 406 | 150 | 132 | 125 | 86 | 712 | 712 | 327 | 255 | 311 | 205 | 305 | 108 | 90 | 90 | 113 |
| Range | 309.67 | 106 | 29 | 27 | 17 | 17 | 228 | 183 | 124 | 62 | 39 | 45 | 62 | 23 | 37 | 40 | 38 |

* These numbers indicate the number of crania subjected to the measurement indicated in the respective columns.

## TABLE IX.

EIGHTEEN CRANIA FROM FLORIDA.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Occipital Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *7 | 16 | 16 | 18 | 11 | | | | | 17 | 16 | 16 | 14 | 15 | 15 | 15 |
| Maximum | 1570 | 540 | 189 | 157 | 142 | 108 | 888 | 850 | 400 | 358 | 364 | 247 | 395 | 135 | 140 | 141 |
| Mean | 1375.7 | 504.9 | 173.5 | 145 | 135.6 | 98.47 | 830 | 777 | 374 | 301.8 | 340 | 234.7 | 369.7 | 126.3 | 121.4 | 119 |
| Minimum | 1210 | 480 | 165 | 137 | 125 | 93 | 783 | 735 | 343 | 290 | 307 | 217 | 346 | 116 | 108 | 108 |
| Range | 360 | 60 | 24 | 20 | 27 | 15 | 95 | 115 | 579 | 68 | 57 | 30 | 49 | 19 | 32 | 33 |

* These numbers show the number of crania subjected to the measurement indicated in the respective columns.



### SUMMARY OF MEASUREMENTS.

Fifty-six Crania from Peru. 1230.7 c. c. = 75 c. i.

Twenty-four Crania from Kentucky. 1313 c. c. = 80 c. i.

Seven Crania from Florida. 1375.7 c. c. = 84 c. i.

*Bones of the Limbs.* In the comparison of the skeletons of the different races, the proportions of the limbs and the measurement of their respective parts, especially of the arms, assume importance, since it has been clearly made out from various sources, but more especially from the recent and most valuable investigations of Dr. B. A. Gould, conducted on a much larger scale than any hitherto made, that there is in the blacks, as compared with the whites, a considerable increase in the relative length of the arms, in which respect the blacks approach the proportions of the apes, and the result confirms the previous observations of Lawrence, Broca, Pruner-Bey and others.

Dr. Gould has also studied the proportions of the limbs in five hundred and eight Iroquois, and has ascertained that in these, too, the arms are longer than in the whites, or even than in the mulattoes, but not so long as in the full blacks, and that this increase in length, as in the blacks, depends chiefly on the forearm and hand taken together.

All the measurements analyzed by him were made on the living body, and cannot therefore be very closely compared with these given in the table below, which are based on the collections of bones obtained from the mounds of Kentucky, and in which the hands and feet are not represented.

The former, however, serve as a guide as to some of the points to be kept in view in the present, as well as other comparisons, having for their object the determination of the anatomical characteristics of man.

INDIANS FROM THE MOUNDS.

| | H. | U. | R. | F. | T. | Humerus = 1.000. |
|---|---|---|---|---|---|---|
| | 28 | 21 | 18 | 34 | 28 | Ulna = 0.816. |
| Maximum, | 337 | 284 | 270 | 479 | 397 | Radius = 0.758. |
| Minimum, | 283 | 214 | 215 | 383 | 317 | Femur = 1.000. |
| Mean, | 310 | 253 | 235 | 438 | 363 | Tibia = 0.829. |

WHITES.

| | H. | U. | R. | F. | T. | Humerus = 1.000. |
|---|---|---|---|---|---|---|
| | 16 | 24 | 20 | 18 | 15 | Ulna = 0.804. |
| Maximum, | 352 | 289 | 272 | 500 | 430 | Radius = 0.754. |
| Minimum, | 290 | 230 | 214 | 391 | 315 | Femur = 1.000. |
| Mean, | 322 | 259 | 243 | 439 | 369 | Tibia = 0.840. |

The numbers at the top of the columns indicate the number of bones of each kind measured. In making the measurements the whole length of each bone is included. Bones from one side of the body only are used and therefore represent individuals.

From the above table it will be seen that the ulna and radius, as compared with the humerus, are longest in the mound Indians, and the length of the tibia, when compared with the femur, is greatest in the whites. But the length of the forearm in the mound skeletons is not so great as the results obtained by Dr. Gould would lead us to expect, if the same proportions prevailed as now exist in the Iroquois. As the number of the measurements here recorded is sufficient to give a good average, it would seem that the proportions were really different, and that those buried in the mounds more closely resembled the whites in the relative length of the fore and upper arms. In the recent skeleton of a large male Sioux we found the ulna 0.819, and the radius 0.775 of the humerus; the first two bones, consequently, as in the Iroquois, are longer than in the mound skeletons. The same is true of an Illinois measured by Dr. Davis, in which the ulna is 0.864, and the radius 0.803 of the humerus. Dr. Davis has also given the measurements of these parts in four Australians, which may be introduced here as a contrast to the recent Indian and the Negro. In the four the average length of the ulna is 0.789, and of the radius 0.746 of the humerus. These bones are therefore shorter than in the whites, according to the preceding tables.

*Perforation of the Humerus.*—Dr. Charles T. Jackson, many years since, called attention to the fact that in several Indian skeletons observed by him, the two fossæ at the lower end of the humerus communicated. Similar observations have since been made by Dr. J. B. S. Jackson and others and specimens showing this peculiarity are preserved in the Warren Anatomical Museum. This condition of the humerus has especial interest, since it is also met with in other races, and also in the apes.

Among the collections of human remains from the ancient mounds of the Western States and of Florida preserved in this museum, there are eighty specimens of the humerus, all unquestionably Indian. Of these, twenty-five, or about 31 per cent. are perforated and the rest not. This character is rarely met with in the white races, and of fifty-two specimens expressly examined for the purpose, it was present only in two.

In the black races it is present in larger numbers, though we know

of no exact observations which show its frequency. Of seven skeletons of pure Negroes in the Garden of Plants in Paris, just one-half of the fourteen upper arm bones were perforated. In the apes, though quite general, it is not constant, as in two large male Gorillas we have found it on one side only, and in an adult female Chimpanzee, it was wanting on both sides, and according to Mivart was wanting in one of the skeletons of an Orang in the British Museum.

*Flattening of the Tibia.* Among the peculiarities of the ancient races of the old world the flattened or sabre-shaped tibiæ found in the dolmens of Chamont and Maintenon, the quaternary drift of Clichy, and the burial caves of Cro-Magnon and Gibraltar, have attracted especial attention on account of their marked deviation from what is seen in the modern European races, and also on account of their alleged resemblance to the corresponding bones of the apes. This flattening, however, does not appear to have been universal during the reindeer period in Europe, since there are other instances, as in the caves of Belgium, where the bones in question, of this same age, have the ordinary shape. On the other hand Mr. Busk states that all the tibiæ from the caves of Gibraltar were flattened.

The existence of such flattening among the aborigines of N. America has not, in so far as we have been able to learn, been noticed hitherto, but from materials belonging to the Peabody Museum, there is no doubt that it prevailed largely, but in a variable degree. It is easily recognized in the large series of bones obtained from the mounds of Kentucky by Mr. Lyon, also in those from the mounds and caves of Tennessee by Mr. Dunning, from a mound in Michigan by Mr. Gillman and from mounds in Florida by the writer. Dr. George A. Otis informs me that he has observed a similar flattening in some of the bones from western mounds, belonging to the ethnological series of the Army Medical Museum at Washington. The flattening results, as it were, from the compression of the bone from side to side, so that either the hinder of the three faces makes a more open angle with the inner, or, in addition, is bent upon itself near the middle, thus making the transverse section of the tibia four instead of three sided, and in either case giving it a sharp edge on the hinder as well as the fore part.

Of the tibiæ of forty individuals from the mounds of Kentucky, one-third presented this flattening to the extent that the transverse did not exceed 0.60 of the fore and aft diameter. The most extreme case was from the mound on the River Rouge in Michigan, in which

the transverse diameter was only 0.48. In the most marked case mentioned by Broca, *viz.*, in the old man from Cro-Magnon, it was, as deduced from his figures, 0.60.

This flattening of the tibia can hardly be considered a race character, since it is found in only about one-third of all the individuals observed and in these in variable degrees. That in the proportions of the two diameters, as stated by Broca, these tibiæ resemble those of the apes there can be no doubt, and the resemblance is still more striking in a smaller number of instances in which the bone is bent and is strongly convex forwards, and its angles so rounded as to present the nearly oval section seen in the apes. The anatomist, however, will not fail to recognize the fact that in the relative length of the bone, in the lines corresponding with the muscular attachments, in the direction of the crest and the forms of the articular portions of the bone, the human characteristics are unchanged and that there is therefore no assimilation to the apes in these respects. In some of the tibiæ the amount of flattening surpasses that of the gorilla and chimpanzee, in each of which we found the short 0.67 of the long diameter, while in the tibia from Michigan it was only 0.48.

From a comparison of the skeleton of the human races, as far as made, it is quite clear that in several respects some of them have peculiarities which seem to assimulate them to the apes. These peculiarities are not, however, confined to a single race, but are distributed in different degrees through several, and it is not improbable that future studies will show a still greater variety of resemblances, and a wider distribution of them, than is now known. The increased length of the forearm, as compared with the humerus, is almost equally shared by the blacks and the recent Indians. The Indians, from the mounds of various parts of the country, as well as the inhabitants of the ancient cave dwellings of Europe, have the flattened tibia. The Indians, ancient as well as modern, in common with the Hawaiian Islanders, have the most backward position of the foramen magnum, while the Negro, on the other hand, with his lengthened forearm, has this foramen almost as central as in the white man. The small brain is not, as might at first well be supposed to be the case, found in the most degraded races alone, but in these, in common with a race which had, as already stated, risen to a semi-civilization; nor s it constantly associated with the lengthened forearm, since in the Australians this is even shorter than in the white man. From these results it seems obvious that we cannot give to the alleged resem-

blances between the human races and the apes their full meaning, until we have much wider comparisons than have as yet been made.

*Pelvis.* After the cranium there is no part of the skeleton which deserves the attention of ethnologists more than the pelvis. The first is closely related to the brain and organs of sense, and the second to the attitude and movements of the body, as well as the process of gestation. The pelvis, too, in consequence of this relationship, shows more strikingly than any other part, beside the skull, the first structural deviations of the brute from the human races. While the pelvis of the European and some of the savage races, has received much attention, that of the American Indian has received but little.

In the collection obtained by Mr. Lyon from the mounds of Kentucky, we have the pelvis of twelve individuals, five males and seven females, sufficiently well preserved to admit of measurement, the results of which are to be found in the following table.

MEASUREMENTS OF THE PELVIS.

(The lengths are in millimeters).

| | Indians. 5 Males. | Indians. 7 Females. | White. 12 Males. | White. 4 Females. |
|---|---|---|---|---|
| Breadth of pelvis across ilia | 261 | 262 | 265 | 264 |
| Height of innominate bone | 200 | 194 | 216 | 192 |
| Breadth of ilium | 145 | 149 | 161 | 150 |
| Fore and aft diameter of true pelvis | 104 | 109 | 100 | 104 |
| Oblique " " " | 121 | 123 | 118 | 119 |
| Transverse " " " | 127 | 133 | 128 | 129 |
| Distance between tuberosities of ischia | 103 | 123 | 100 | 113 |
| From end of sacrum to tuberosity of ischium | 80 | 89 | 74 | 86 |
| End of sacrum to pubes, under side. | 120 | 123 | 118 | 120 |
| Length of sacrum in a straight line and without coccyx. | 97 | 106 | 104 | 93 |
| Length of sacrum following curve | 103 | 101 | 116 | 108 |
| Breadth of sacrum | 116 | 117 | 116 | 115 |
| Depth of true pelvis | 97 | 92 | 102 | 91 |

For the purpose of comparison the measurements of the pelvis of sixteen whites, twelve males and four females, are given in the las two columns.

The comparison shows that the breadth of the European pelvis and

of its innominate bone in both sexes is greater than that of the Indians. The height of the pelvis in both races is greatest in the males, and that of the whites is greater than that of the Indians. The height of the pelvis in the females of both races is almost the same.

The three diameters of the brim of the true pelvis of both sexes are greatest in the Indians. The average diameter of the brim in the females is, for the white, 117.3 m.m., and for the Indian, 121.6 m.m. The same diameter for the males is for the whites 115.3 m.m., and for the Indian 117.3. In the Indian the transverse diameter is much the largest in both sexes, and the inlet is triangular.

The size of the outlet of the pelvis is greatest in the Indian. The breadth of the sacrum is almost exactly the same in both sexes of both races, but the sacrum of the Indian is the least curved.

The conditions which facilitate the process of parturition are, as far as they go, the most favorable in the Indian woman.

The depth of the true pelvis of the male is greatest in the European, while that of the female pelvis is almost the same in the two races and less than in the males.

There is no approach in the Indian pelvis to that of the apes. This last is characterized by having the height greater than the breadth, the fore and aft diameter greater than the transverse, and in having the sacrum longer than broad. The Indian pelvis shows the reverse of all this.

*Marks of Disease.* Among the bones from different sections of the country, *viz.*, the mounds of Florida, Tennessee and Kentucky, also from the caves of Tennessee, the indications of disease are quite numerous. They consist chiefly of the results of periosteal inflammations, in some cases leaving only superficial effects, in others, the inflammation having assumed a chronic form, has extended through the whole thickness, causing an obliteration of the marrow cavity, and a deformity and general increase of the bulk of the bone. In a large proportion of the cases the disease was confined to the tibia.

Diseases of the joints, involving a destruction of the articular cartilages and the wearing of the bones on each other, and the peculiar outgrowths, especially around the bodies of the vertebræ, similar to those associated with chronic rheumatic affections, have been noticed, the latter quite frequently. Of fractures we have seen only a well united fracture of the radius, and two old ununited fractures of the arches of the lower lumbar vertebræ.

J. WYMAN, *Curator.*

# REPORT OF THE TREASURER.

*To the Trustees of the Peabody Museum of American Archæology and Ethnology in connection with Harvard University:*

The Treasurer respectfully presents his Fourth Annual Report in the following abstracts of accounts, and the cash account hereto annexed: —

*The Collection Fund is charged with*

| | | |
|---|---|---|
| 9 Massachusetts Five per cent. Coast Defence Specie Notes, due July 1, 1883, each $5,000, number 46 to 54, registered, the gift of George Peabody, Esq. | $45,000.00 | |
| Income from above Notes in currency | 2,496.09 | |
| Income from 9 Massachusetts Five per cent. Specie Notes of Professor Fund | 2,496.10 | |
| Income from Investments by the Treasurer | 86.98 | |
| Balance of Treasurer's account, settled Jan. 8, 1870 | 1,737.92 | |
| | | $51,817.09 |

*And Collection Fund is credited with*

| | | |
|---|---|---|
| Payment to Professor Jeffries Wyman, as Curator | $1,000.00 | |
| Payment to Rev. C. O. Dunning for Researches in Tennessee | 300.00 | |
| Payment to Barings, Bros. & Co., for comm. on 10,000 frs. for Clement Collection | 22.55 | |
| Payment for Incidental Expense | 30.00 | |
| Payment to Hon. R. C. Winthrop for Books from Copenhagen | 44.26 | |
| Payment to Porter C. Bliss, Esq., for Explorations in Mexico | 250.00 | |
| Balance of Worcester and Nashua Railroad Co.'s Note, Feb. 17. 1870, on demand, Interest Six per cent. | 156.80 | |
| City of Worcester Note, Jan. 4, 1871, on demand, Seven per cent. Interest | 5,013.48 | |
| 9 Massachusetts Five per cent. Specie Notes as above | 45,000.00 | |
| | | $51,817.09 |

*The Professor Fund is charged with*

| | |
|---|---|
| 9 Massachusetts Five per cent. Specie Notes, as above, each $5,000, registered number 55 to 63, the gift of George Peabody, Esq., the Income being appropriated to Collection Fund, as the Professorship is not filled | $45,000.00 |

*The Building Fund is charged with*

| | | |
|---|---|---|
| 12 Massachusetts Five per ct. Specie Notes, as above, each $5,000, registered number 64 to 75, the gift of George Peabody, Esq. | $60,000.00 | |
| Income from above Notes in currency | 3,464.55 | |
| 3 United States Five-twenty Bonds of July 1, 1867, 2 of $1,000, 1 of $50 | 2,050.00 | |
| 9 Worcester Water Bonds, due June 1, 1877, at Six per cent. | 4,500.00 | |
| 3 Worcester Sewer Bonds, due June 15, 1877, at Six per cent. | 2,100.00 | |
| One City of Worcester Note. Jan, 6, 1870, on demand, Seven per cent. Interest | 2,144.05 | |
| Repayment of City of Worcester Note, July 6, 1869 | 2,287.35 | |
| Income from Investments of Treasurer | 766.98 | |
| | | $77,312.93 |

*And Building Fund is credited with*

| | | |
|---|---|---|
| 6 Worcester and Nashua Railroad Co. Five-ten Seven per cent. Bonds of Dec. 31, 1870. | $6,000.00 | |
| Payment of accrued Interest on above Bonds. | 2.18 | |
| City of Worcester Note, Jan. 4, 1871, on Demand, Interest Seven per cent. | 515.87 | |
| 9 United States Five-twenty Bonds of July 1, 1867, as above | 2,050.00 | |
| 3 Worcester Water Bonds, due June 1, 1877, as above | 4,500.00 | |
| 3 Worcester Sewer Bonds, due June 15, 1877, as above | 2,100.00 | |
| One City of Worcester Note, Jan. 6, 1870, on demand, Interest Seven per cent. | 2,144.05 | |
| Cash in the hands of the Treasurer | .83 | |
| 12 Massachusetts Five per cent. Specie Bonds, as above | 60,000.00 | |
| | | $77,312.93 |

*The Investments of the*

| | | |
|---|---|---|
| Collection Fund, at par, amount to | $50,170.28 | |
| Professors Fund, at par | 45,000.00 | |
| Building Fund, at par | 77,310.75 | |
| | | $172,481.03 |

STEPHEN SALISBURY, *Treasurer.*

*Boston, Jan.* 12, 1871.

**Dr. STEPHEN SALISBURY, *Treasurer of Peabody Museum of American Archæology***

| | | | | |
|---|---|---|---|---|
| 1870. | | *For Collection Fund.* | | |
| Jan. 8. | To balance of Cash in the hands of the Treasurer | | | $1737.92 |
| July 6. | To received Six Months' Interest on $45.000, Massachusetts Five per cent. Notes, to 1st inst., Gold | | $1,125.00 | |
| | To received on sale of above, $1,125, Gold, at 11¼ per ct. | | 126.56 | |
| | To received Six Months' Interest on $45,000, Massachusetts Five per cent. Notes of Professor Fund, Gold | | 1,125 00 | |
| | To received on sale of above Gold, $1,125, at 11¼ per ct. | | 126.56 | |
| | | | | 2,503.12 |
| Aug. 22. | To received Six Months' Interest on Worcester and Nashua Railroad Co's Note of Feb. 17, 1870. | | 13.14 | |
| Aug. 22. | To received in part of principal of same | | 81.12 | |
| | | | | 94.26 |
| Aug. 24. | To received in part of principal of same | | | 200.00 |
| 1871. | | | | |
| Jan. 2. | To received Six Months' Interest on $45,000 Massachusetts Five per cent. Notes, to 1st inst., Gold | | $1,125.00 | |
| Jan. 2. | To received on sale of above $1,125, Gold, at 10⅝ per cent. | | 119.53 | |
| Jan. 2. | To received Six Months' Interest on $45,000 Massachusetts Five per cent. Notes of Professor Fund, Gold. | | 1,125.00 | |
| | To received on sale of above $1,125, Gold, at 10⅝ per ct. | | 119.54 | |
| | | | | 2489.07 |
| Jan. 4. | To received amount of Worcester Note of July 7, 1870, $2503.12, Interest $73.84. | | | 2,576.96 |
| 1870. | | *For Building Fund.* | | |
| July 5. | To received Six Months' Interest on Worcester Sewer Bonds, to June 15 | | $63.00 | |
| July 5. | To received Six Months' Interest on Worcester Water Bonds to June 1 | | 185.00 | |
| July 5. | To received Six Months' Interest on Worcester Note of July 6, 1869, at Seven per cent. | | 80.06 | |
| July 5. | To received Six Months' Interest on Worcester Note of Jan. 6, 1870, at Six per cent. | | 75.04 | |
| | | | | $353.10 |
| July 6. | To received Six Months' Interest on $60,000 Massachusetts Five per cent. Notes, to 1st inst., Gold | | $1,500.00 | |
| July 6. | To received on sale of above $1,500, Gold, at 11¼ per ct. | | 168.75 | |
| July 6. | To received Six Months' Interest on United States Five-twenty Bonds, $2,050, to 1st inst., Gold | | $61.50 | |
| July 6. | To received on sale of above $61,50, Gold, at 11¼ per ct. | | 6.91 | |
| | | | | 1,737.16 |
| Dec. 30. | To received Six Months' Interest on Worcester Water Bonds, to 1st inst. | | $135.00 | |
| Dec. 30. | To received Six Months' Interest on Worcester Sewer Bonds, to 15th inst. | | 63.00 | |
| | | | | 198.00 |
| 1871. | | | | |
| Jan. 2. | To received Six Months' Interest on $60,000 Massachusetts Five per cent. Notes, to 1st inst., Gold | | $1,500.00 | |
| Jan. 2. | To received on sale of above $1,500, Gold, at 10⅝ per ct. | | 159.38 | |
| Jan. 2. | To received Six Months' Interest on $2,050 United States Five-twenty Bonds, to 1st inst., Gold | | 61.50 | |
| Jan. 2. | To received on sale of above $61.50, Gold, at 10⅝ per ct. | | 6.51 | |
| | | | | 1,727.39 |
| Jan. 4. | To received Amount of Worcester Note, July 6, 1869, $2,287.35, Interest at Seven per cent., $79.17 | | | 2,366.52 |
| Jan. 4. | To received Interest on Worcester Note, Jan. 6, 1870, $2,144.05 at Seven per cent., to 6th inst. | | | 75.0 |
| Jan. 4. | To received Amount of Worcester Note. July 7, 1870, $2,090.26 at Six per cent., $61.67 | | | 2,151.93 |
| | | | | $18,210.4 |

*etc., in connection with Harvard University, in Annual Cash Account, Jan. 12, 1871.* **Cr.**

| | | | |
|---|---|---|---|
| 1870. | *For Collection Fund.* | | |
| Jan. 13. | By paid Prof. J. Wyman, as Curator, one year's Salary to 1st inst. | $500.00 | |
| Jan. 13. | By paid Prof. J. Wyman, as Curator, on salary for 1871 | 500.00 | |
| | | | $1,000.00 |
| Jan. 17. | By paid Rev. C. O. Dunning, in advance, for Researches in Tennessee | | 300.00 |
| Jan. 15. | By paid rent of safe deposit one year, to Feb. 1, 1871 | | 30.00 |
| Feb. 17. | By paid for Worcester and Nashua Railroad Co.'s Note, on demand, at Six per cent. | | 437.92 |
| May 18. | By paid Baring, Bros. & Co., comm. on 10,000 frs. for Clement Collection, by Hon. R. C. Winthrop | | 22.55 |
| July 6. | By paid for City of Worcester Note on demand, at Six per cent. | | 2,503.12 |
| July 18. | By paid Porter C. Bliss, Esq., in part for Grant for Explorations in Mexico | | 50.00 |
| July 25. | By paid Hon. R. C. Winthrop for paid for Books | | 44.26 |
| Aug. 24. | By paid Porter C. Bliss, Esq., in part, for Grant for Explorations in Mexico | | 200.00 |
| 1871. | | | |
| Jan. 4. | By paid for City of Worcester Note, on demand, at Seven per cent. | | 5,013.48 |

| | | | |
|---|---|---|---|
| 1870. | *For Building Fund.* | | |
| July 7. | By paid for City of Worcester Note, on demand, at Six per cent. | | $2,090.26 |
| 1871. | | | |
| Jan. 3. | By paid for Worcester and Nashua Railroad Co.'s Five ten Seven per cent. Bonds, dated Dec. 31, 1870 | $6.000.00 | |
| Jan. 3. | By paid for accrued interest on said Bonds | 2.18 | |
| | | | 6,002.18 |
| Jan. 4. | By paid for City of Worcester Note, on demand, at Seven per cent. | | 515.87 |
| Jan. 12. | By Cash in the hands of the Treasurer | | .83 |
| | | | $18,210.47 |

BOSTON, January 12, 1871.

I have examined the above account of Hon. Stephen Salisbury, Treasurer, and find it correctly cast, with proper vouchers for the same. I have also examined and counted the Bonds and Notes held as securities, and find them as above stated.

HENRY WHEATLAND, *Auditor.*