



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### **Usage guidelines**

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### **About Google Book Search**

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

STANFORD  
LIBRARIES

E  
98  
.A6  
M245  
1901



TRACT No. 90, IN VOL. IV.  
WESTERN RESERVE HISTORICAL SOCIETY.  
CLEVELAND, OHIO.

---

THE  
ARCHÆOLOGICAL COLLECTION  
OF THE  
WESTERN RESERVE HISTORICAL SOCIETY.

---

By J. P. MacLEAN.

---

PUBLISHED BY  
A GENTLEMAN OF THE SOCIETY.

---

PUBLISHED FOR THE SOCIETY.  
CLEVELAND, O.  
1901.



TRACT No. 90, IN VOL. IV.  
WESTERN RESERVE HISTORICAL SOCIETY.  
CLEVELAND, OHIO.

---

THE  
ARCHÆOLOGICAL COLLECTION  
OF THE  
WESTERN RESERVE HISTORICAL SOCIETY.

---

By J. P. MacLEAN.

---

PUBLISHED BY  
A GENTLEMAN OF THE SOCIETY.

---

PUBLISHED FOR THE SOCIETY.  
CLEVELAND, O.

1901.

[REDACTED]

[REDACTED]

TRACT No. 90, IN VOL. IV.  
WESTERN RESERVE HISTORICAL SOCIETY.  
CLEVELAND, OHIO.

---

THE  
ARCHÆOLOGICAL COLLECTION  
OF THE  
WESTERN RESERVE HISTORICAL SOCIETY.

---

By J. P. MacLEAN.

---

PUBLISHED BY  
A GENTLEMAN OF THE SOCIETY.

---

PUBLISHED FOR THE SOCIETY.  
CLEVELAND, O.

1901.

11.



E 19411

E 98

A 6 1/2

## INTRODUCTION.

---

The Western Reserve Historical Society was organized for the purpose of discovering, collecting and preserving whatever relates to the history, biography, genealogy and antiquities of Ohio and the West. In order to awaken and keep alive an interest, as well as to carry out the expressed purpose of its charter, many papers, modestly called Tracts, have been published, from time to time, by the Society, on history and archaeology. No branch of the field as thus declared to be preoccupied has been neglected. Manuscripts and published memoirs have been sought for and placed on the shelves in order that the student might be assisted in his researches. Exclusive of Government publications and pamphlets, the bound volumes in the library amount to three hundred and twenty-seven volumes on anthropology, a large percentage of which is devoted to American Indians and American archaeology.

The growth of that part of the Museum devoted to archaeology has been commensurate with the progress of the library. The means at the disposal of the Society have been judiciously applied and every exertion used to collect such relics as would add to the knowledge of the past. In this object the labor has not been restricted to Ohio, or even to North America.

In many respects the Society has been exceedingly fortunate. From its inception there have been men closely identified with it who were deeply interested in all the objects for which it had been instituted, and especially in anthropology. Colonel Charles

Whittlesey, its first President, was second to no man in American archaeology. Judge Charles C. Baldwin, long its efficient Secretary and its second President, was one of the most industrious collectors of prehistoric relics in America, as well as being thoroughly versed in the science. Under the genius of these two collaborators the archaeological cabinet has grown to its present proportions. The interest thus displayed aroused a like disposition in others; and their donations to the Museum were rapidly supplemented by other collectors.

The various collections are kept separate, that each donor may have due credit. His name appears with his gifts. All are exhibited in cases made for the purpose, and the display is so arranged as to be readily accessible to the general public.

#### MODERN SPECIMENS.

Pre-historic people are judged by such tribes, now living, who arm themselves with the same class of weapons and possess similar domestic utensils. Upon the supposition that the pre-historic remains of America belong to one or more branches of the American family, and not an exotic race, efforts, more or less successful, have been made to obtain specimens of the arts of aborigines still in existence. While this department is yet in its infancy, yet it numbers a bark canoe from Lake Superior, with two very small ones of the same material, an Eskimo shirt made of the intestines of the seal, with dolls, playhouse, sled and kayak for the children; snow-shoes, large and diminutive; twenty-five hafted arrows, all having points made of hoop-iron, save one of obsidian and one of bluish chert. Some of these points are poisoned; a rudely executed Sioux flute, two pony whips; cloth made of birch bark by the Chinooks; child's moccasins; six baskets ornamented; bead work; wampum given to Rev. Joseph

Badger in 1806; Modoc seal-faced cap studded with circular bead work; horse hair crest taken from an Indian during the massacre in Minnesota in 1863; bullet mould made of catlinite and used by a chief in 1705; King Phillip's war club, made out of wood and elaborately carved, 1665; an elaborately carved wooden pipe given by Paqua, a Missouga Indian, to Gen. Moses Cleaveland, July 6, 1795. Other pipes will be mentioned under their proper treatment.

#### PLASTER MODELS AND CASTS.

When an original relic cannot be obtained the next best thing is to secure either a model or else a cast of the same. The Rio San Juan country has opened up the stone structures of a lost people, known as the Cliff-Dwellers. Far up the sides of the canons are the remains of human habitations. The following models of these structures are on the floor of the Museum: Ruin in the Valley of Rio De-Chelly, Arizona, drawn to a scale of 1 to 36; two Cave Towns, same locality, each drawn to a scale of 1 to 72; Ruins canon of Rio Mancos, Colorado, scale 1 to 24; Cliff Fortress, Beaver Creek, Arizona, scale 1 to 60; Tower in southwest Colorado, scale 1 to 24, and Montezuma's Well, in Arizona. These models are from those made by geologists connected with Hayden's survey of the territories.

On Kelley's Island are two famous rocks. One is an Indian inscription or pictograph and the other has quite a number of circular depressions. Both have been carefully modeled by Dr. E. Sterling and delivered by him to the Society.

The Smithsonian Institution has made casts of the rarer specimens of aboriginal relics, which it has presented to the Museum, consisting of different forms of axes, hatchets, spear-heads, swords, tablets, hoes, spades, pipes, ceremonial stones, discoids,

rolling-pins, vessels, and the Cincinnati Tablet. Besides these other forms have been given by different individuals. A fine set of moulds for making most of these is owned by the Society, presented by Dr. Sterling.

Of interest to the observers and students are the Chaldean Flood Tablet, the Rosetta Stone, the Neanderthal Skull, with ideal Restoration of the Neanderthal Man; besides a cast of a Dial of fine grained sandstone found at Mitla, Oaxaca, Mexico, in 1864. To these must also be added copies in metal of four bronze dirks and three medals found at a considerable depth while digging a well in Surrey county, England, the originals of which are owned by Dr. A. C. Buell.

However interesting and valuable may be these relics, no attempt will here be given either to describe or illustrate them. Probably most of them have already been described in one or more publications.

#### CABINETS.

Reference has already been made to the cabinets that have been donated to the Society. These should have more than a passing notice. These cabinets should be classed into the Major and Minor collections, the difference being in the number of specimens.

#### WHITTLESEY COLLECTION.

During the early history of the Society, and while the property was still under the immediate care of Colonel Charles Whittlesey, the quarters were cramped, and being forced to undergo many rearrangements, as well as removals, some of the relics, perhaps only a small percentage, became detached from their proper positions, and in other instances labels became lost, in so much so that at this time it would be impossible to designate all that were directly donated by Colonel Whittlesey. Those that have been

set aside as strictly his collection, save in five instances, are wholly without labels. It is thus impossible to determine which are from the mounds or the surface finds. It is possible and even probable that some of the minor collections had in the first place been donated to him, and with care he placed the name of the party on the specimen or the card, where the same still remains. What is distinctively known as the Whittlesey Collection embraces 475 chert or flint implements, representing all the various shapes from the delicately minute arrow point to a lance head twelve inches in length. Owing to the many varieties and the perfect condition of these specimens, great care must have been exercised in their selection. To these must be added four copper beads, a stone maul, a wooden shovel, to be treated farther along, and a plate of mica.

#### C. C. BALDWIN COLLECTION.

The collection presented by Judge C. C. Baldwin is considered, for its size, to be one of the most choice in America. On this account it was selected as a representative for the New Orleans Exposition. Nearly every specimen is a typical one; and with but very few exceptions every specimen is marked and a record made, so that the place of discovery is known. The specimens have been selected from a wide range of territory, embracing Monroe county, New York; Butler, Carroll, Cuyahoga, Geauga and Lake counties, Ohio; Posey and Vanderburg counties, Indiana; Pulaski, Union and White counties, Illinois; Mississippi county, Missouri and Obion county, Tennessee. The collection may be thus enumerated: 6 copper implements, 6 discoids, 4 cup-stones, 14 pipes, 51 perforated slates, 5 unperforated slates, 2 images, 2 quartz ornaments, 5 plumbstones, 2 polishers, 1 cone, 3 tubes, 4 slate balls, 7 hematites, 37 hatchets, 1 gouge, 1 adze, 5

bark peelers, 2 chisels, 13 hoes, 13 spades, 57 axes, 17 pestles, 2 rolling pins, 34 vessels of pottery, 309 arrow and spear-heads, 635 shell beads or wampum and 5 miscellaneous. The spades, when struck by a small wooden mallet, give out a clear, distinct note. It would be an easy matter to arrange them in such a manner as to make a musical instrument upon which any tune could be played.

#### D. C. BALDWIN COLLECTION.

Hon. David C. Baldwin has proved himself to be an ideal collector. The cabinet donated by him is not only fine and elaborate, but he has carefully preserved the history of each specimen, naming place and from whom received; all of which is preserved in a book devoted to that purpose. The bulk of the collection is from Lorain county, Ohio, principally from the Shelter Cave and Spaulding Fort, both of which are near Elyria. On account of the circumscribed territory to which these specimens belong it becomes of immense value in the study of the subject. The value is enhanced by the addition of 10 human skulls, besides fragments of human crania, and the remains of animals. The importance of the collection is made more prominent by additions from Kansas, Michigan, Minnesota, New Mexico, North Carolina, Tennessee, England, France, Switzerland and the South Sea Islands. Besides the remains of man in America, the palaeoliths of England, and the neoliths of Switzerland may here be studied.

Passing over the innumerable fragments of pottery and the various bones of both man and animals, which fill several drawers, there are of implements 243 bone, 17 pipes, 4 tubes, 49 perforated and 10 unperforated slates, 2 images, 3 copper, 1,390 chert or flint, 10 colorless quartz, 7 obsidian, 8 vessels, 36 cup-stones, 16 balls, 27 axes, 100 hatchets, 32 hammers, 8 bark peelers, 2 rolling pins, 2 pestles and 115 beads or wampum. This

collection is constantly being added to by Mr. Baldwin, the most recent acquisitions being 211 colored angular beads of glass from an Indian grave near Brindletown, North Carolina, three strings of colored wampum from Cayuga county, New York, and a string of beads thirteen and a half feet long from the South Sea Islands.

#### BALDWIN-BALDWIN COLLECTION.

This collection was made by Judge C. C. Baldwin and his son, S. Prentiss Baldwin, and donated by the latter. The cabinet consists almost wholly of the remains of the Cliff-Dwellers. Taken in conjunction with the ruins of houses, the models of which have already been referred to, the value of this collection can hardly be estimated. Among the many places that yielded up the relics are Montezuma Canon, Cliff Palace, Holley Canon, Spring Tree, Spruce Tree, Tunnell City, Mesa Verde and Mancos. The collection is supplemented with various works of art secured of the Moqui Indians. In this collection are 4 human crania, 1 human mummy, 3 metate, 25 flat rubbing stones, 1 mortar, 3 cup stones, 1 sinker, 3 axes, 3 hatchets, 1 tube, 1 ball, 1 pipe, 1 hoe, 170 arrow heads, 90 bone implements, 423 beads or wampum, 113 vessels of pottery, besides a great number of broken pieces of pottery more or less decorated. Collections such as this should be seen in order to be appreciated.

#### WORDEN-WARNER COLLECTION.

Joseph and James Worden and Carlos Warner explored the site of an Indian village near Willoughby, Ohio, and opened the graves adjoining the same. The collection made by them was donated by the first named after the decease of the other two. While this cabinet contains comparatively few of what might be termed choice specimens, yet it is of peculiar value in that it pre-



sents the domestic implements used by the inhabitants of an Indian village located on the south shore of Lake Erie. What was the actual life of these people was the same of the neighboring villagers during the same period. Specimens thus obtained, held in conjunction with others from the same locality are the true indices in unravelling the manners and customs of these bygone people. If every other collection in the Museum were removed, the Worden-Warner cabinet would be of sufficient importance to enlist the attention of any ethnologist.

The three indefatigable collaborators of Willoughby did not arrive to the exalted scope and breadth of an anthropologist, for, owing to some sentiment respecting the dead, the human bones, especially the skulls, were reinterred; thus the value of the crania is lost. The collection is accompanied by three MSS. maps of the old Indian fort and circle at Willoughby. The cabinet may be classified as follows: 257 bone, 30 pipes (besides fragments), 140 hatchets, 3 axes, 3 chisels, 21 bark peelers, 15 hammers, 46 perforated and 36 unperforated slates, 4 tubes, 1 cone, 5 cup stones, 8 vessels of pottery, 300 arrow heads and 100 miscellaneous, besides 3 human crania.

#### JOHNSON COLLECTION.

The collection made and donated by Henry N. Johnson is from Kelley's Island, in Lake Erie. The cabinet proves that the village on the island must have been either extensive or else used for a long period of time. The value of this collection is also great in that it illustrates the mode of life of the villagers that once occupied that site. Nearly all the degrees or stages of workmanship are here exhibited. It is probable that the typical specimens are from other localities. Judging by the class of relics found, the villagers of Kelley's Island must have been a

pronounced type of savages. The relics consist of 7 pipes, 125 bone, 14 perforated and 3 unperforated slates, 50 balls, 38 axes, 150 hatchets, 53 bark peelers, 6 pestles, 3 rolling pins, 23 cup stones, 324 chert, 100 flat or polishing stones and 125 miscellaneous. In this enumeration, however, it must be noted that all are not from the island. This is specially true of the axes and bark peelers.

**The Peter Neff Collection**  
Presented by ~~HATCH COLLECTION~~ **Mr. H. R. Hatch**

The cabinet donated by H. R. Hatch has been well arranged, for the most part, on cards, and thus makes a good display. It has been selected with care, and as the greater proportion of it

Line 8. Page 199 of Tract No. 90 of the Western Reserve Historical Society. Change "Hatch Collection" to read, The **Peter Neff Collection** Presented by **Mr. H. R. Hatch.**

#### MINOR COLLECTIONS.

There are many specimens with names attached to same, but the record is not always sufficiently clear to indicate whether or not they were directly donated by said parties. It is, however, positively known that some of these specimens came directly from those whose names follow. The names specified are Dr. J. P. Kirtland, George W. Coon, D. W. Cross, Charles Carpenter, Amelia H. Converse, William Cardie, William Barker, E. F. Gaylord, H. C. Gaylord, Dr. T. Garlick, E. G. Green, J. A. and

R. S. Graham, O. J. Hodge, J. F. Harsch, P. M. Hitchcock, C. L. Johnson, Thomas Kirby, James Merrifield, Dr. W. B. Munson, Bertie May, Robert E. Mix, Bert Manchester, L. S. Philips, N. Smith, James J. Smith, Frank H. Smead, Dr. E. Sterling, Edwin Squire, A. J. Williams and O. B. Waite of Cleveland; R. W. Strong, Willoughby; A. W. and L. Bliss, G. W. McKisson and Cass Proctor, Northfield; J. Watkins, Marblehead; Prof. G. Frederick Wright, Oberlin; W. C. Mills, Columbus; J. P. MacLean, Hamilton; F. Vandervier, Granger; Basil Thorpe, Warrensville; Judge M. L. Force and Dr. F. J. Locke, Cincinnati; Col. L. Du Pre, Memphis, Tenn.; A. F. Gage, Lawrenceburg, Ind.; L. Wilcox, Los Vegas, New Mexico; M. H. Baker, J. A. Potter and A. Porter, Rockport; O. F. French, Ashtabula; H. Chapman and J. A. Rogers, Kenton; J. E. Crandall, Lake View; H. E. French, East Rockport; Henry Hosmer, Guilford; W. R. Philips, Chagrin Falls, F. A. Carr, Richfield; William Wilson, Stafford; J. S. Dille, Euclid, and Otis Fanor, Independence. The names of persons who donated to the Major collections are not included in the list, for the reason said gifts were made before the specimens were turned over to the Society.

The Minor or miscellaneous collections contain 21 human crania, 10 pipes, 4 images, 1 cone, 4 hematites, 74 perforated and 13 unperforated slates, 2 axes, 26 hatchets, 3 clay ornaments, 3 chisels, 17 vessels of pottery, 5 cup stones, 482 beads or wampum, 3 boat shape stones, 1 gouge, 7 copper, 45 bone, 900 chert or flints, 9 tubes, 2 balls, 2 hammers, 1 metate, 4 sculptures and 20 miscellaneous—fragments of pottery not counted. To this should be added the donation from the Smithsonian Institution, which, exclusive of casts, consists of 1 metate, 3 mortars, 2 flat stones, 1 cup stone, 6 axes, 6 pestles and 200 chert or flints.

## CLASSIFICATION OF REMAINS.

The study of archaeology embraces all the ancient remains that pertain to man. In the investigation nothing must be slighted; for, however small or insignificant an object may be, it must be reckoned as pointing to something, perhaps of special importance. The metals, various kinds of stone, shells, bones, clay and wood will indicate advancement in the arts as well as the status of the people at the time the implements were fashioned.

## CRANIA.

In solving pre-historic problems great reliance has justly been placed on human crania. *Crania Americana* has been carefully studied ever since Dr. Morton published his great work on that subject. Crania indicate that tribes may be separated as well as races. Collectors are now fully alive to the importance of carefully preserving the crania whether exhumed from graves or taken from mounds.

The collection of human crania possessed by the Historical Society is small, embracing but forty-two, inclusive of two Egyptian and exclusive of the broken and fragmentary, which would considerably increase the number. Those pertaining to America were of young men and bear no traces of having passed middle life. The sutures, especially the lambdoidal and sagittal, are open, and in the former, in some of the skulls, may be seen large wormian bones. Of the crania two are from the mounds, five are Cliff-Dwellers, and the balance from Indian graves. One of the last named still has the arrow point sticking in the occipital bone that deprived the Indian of his life. The skull from a mound near Memphis, Tenn., donated by Col. L. J. Du Pre, is not accompanied by any history, save that it was found at

the base of a mound. The skull from a mound in Illinois, donated by Hon. A. J. Williams, is in a perfect state of preservation. It was, in 1879, dug out of a mound, twenty-five feet in height, on an elevation about two hundred feet above the Wabash river, near Marshall's Ferry. The skeleton was about eight feet below the top of the mound, and over it had grown an oak tree more than three feet in diameter. On the breast was a large sheet of mica, and in the elbow of one arm was a large sea-shell (in the Museum) having the inside spiral formation well worked out, thus transforming it into a dipper.

#### EGYPTIAN MUMMY.

The ethnological value of the Museum has been greatly enriched by the addition of an Egyptian mummy, being the remains of the high priest of Thebes during the 18th dynasty, and lived 3,500 years ago. It is in a perfect condition, and in all probability none better has come from the tombs. As there will be a special paper on this mummy nothing further will be here recorded. It was presented by Hon. L. E. Holden.

#### IMPLEMENTS OF METAL.

It is not the province of this paper to trace the state of the arts among the Americans from our earliest knowledge of them. Primitive man first learned the benefit of a club as a weapon of offense and defense. From the shelter afforded by the branches of trees, he afterwards protected himself under overhanging rocks and in the recesses of caves, during which time he learned the value of rude stone implements and by successive steps approached the use of metals. At the time of the discovery of America the aborigines knew the use of copper, and also fashioned hematite and iron into various shapes.

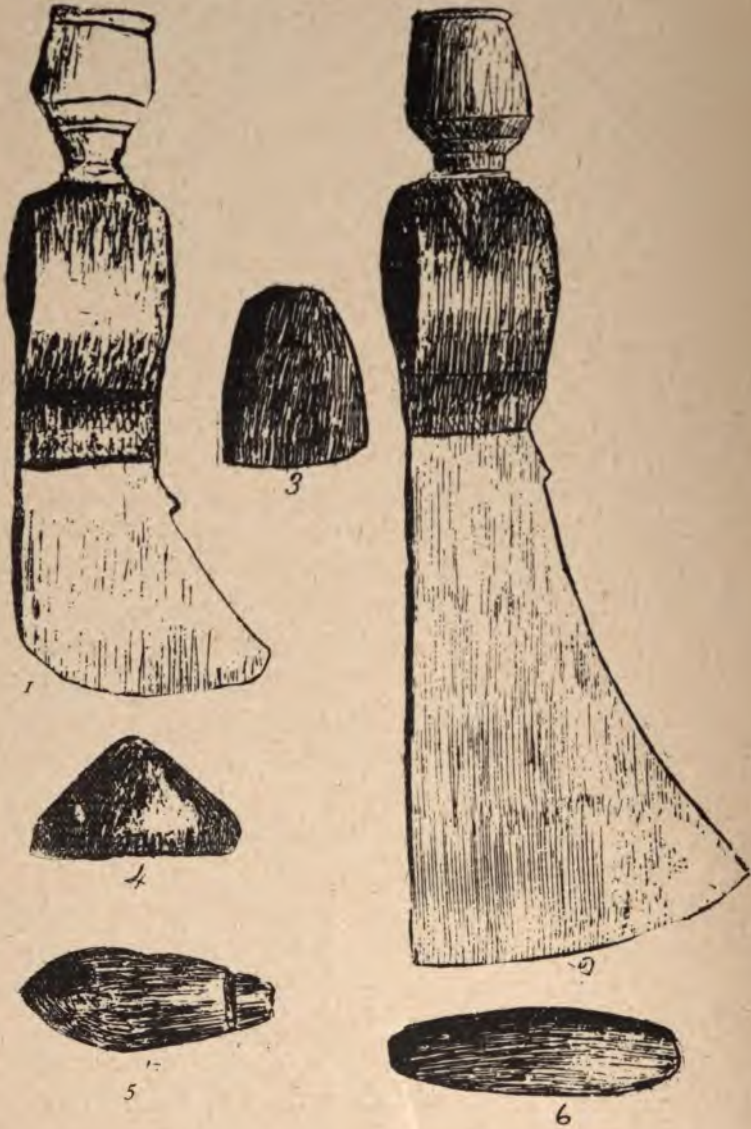
IRON.—Such implements of iron, embracing ornaments and hatchets—exclusive of arrow points—in the Museum, were made by the white man and received by the Indians through barter. It is not a difficult matter to discern the difference in the manufacture of metals by the two races. The Museum contains seven tomahawk pipes, and eight hatchets or axes of iron. One of the pipe tomahawks is inlaid with silver Masonic emblems. In Ohio this class of pipes occurs more abundantly in Darke county—west of a line running due north and south through Greenville—although not numerous even there. They have been ploughed up on the surface, and a few have been taken from graves. The blade is usually of a good quality of steel, and the rest of wrought iron. In some the bowl is screwed into the pole of the hatchet, and in others welded. It is probable that the greater percentage of them was made by the French. Occasionally they are seen with a cross in a circular depression on the blade, in which case they were given by the Jesuits.

In the accompanying illustration (Plate I)\* is the figure of the hatchet that belonged to an Indian called Wilson, who was the last of his race killed in Summit County, Ohio. He was killed by Jonathan Williams on Mud Brook, on account of having maltreated the wife of a pioneer. The bowl is battered and the blade greatly worn. Of much finer workmanship is another (2) purchased in Detroit in 1793, and donated by R. E. Mix. These two specimens are fair representations of those usually found.

As the effects of an Indian were usually buried with him, the graves at times are rich in the variety of their contents. In November, 1866, at Presque Isle, west side of Lake St. Clair, and seven and one-half miles above Detroit, an Indian grave was

\*All illustrations in this paper, except two, were drawn by Eugene H. MacLean, from the actual specimens. Unless otherwise mentioned, all are reduced to one-half the diameter of the originals.

PLATE I



opened, over which stood an apple tree eleven inches in diameter, out of which were taken a brass kettle, bell, three copper beads, copper plate for fastening ends of hair with hair enclosed, wooden spoon, fragments of two pewter dishes, four parts of pewter spoons, two flints, a piece of iron, one ornament of bone and a fragment of cloth. It is beyond question that the greater part of these relics was the work of the white man. These relics were donated by Mr. Mix.

HEMATITES.—The hematites, representing both brown and red, are few in number, embracing 6 cones, 2 hatchets, 5 plumb-bobs, 2 rubbers or polishers, and 1 nodule. The localities are not given, but in all probabilities they are surface finds. Though this class of implements is found to a greater or less extent all over Ohio, and indeed in other states, yet the hematites appear to be more abundant in Meigs County than in any other locality. It is generally believed that this metal was obtained in Pennsylvania. In the accompanying plate (I) are given illustrations of a hatchet (3), cone (4), plumb-bob (5), and rubber (6), all of which, except the cone, are from the C. C. Baldwin collection.

COPPER.—Amateur collectors seek diligently for implements of copper, especially those obtained from mounds, and often pay exorbitant prices for the same. Copper implements are not abundant, and consequently did not occupy an important place in the industrial arts of the aboriginal inhabitants. The copper was hammered out cold and shaped into hatchets, chisels, knives, arrow and spearheads, and various ornaments. They not only occur in mounds, but also in graves, and a few from the general surface.

Colonel Charles Whittlesey, in "Smithsonian Contributions to Knowledge," No. 155, written in 1856, but not published till 1862, has given an admirable account of ancient mining on Lake



Superior, and from this treatise all subsequent works on copper implements have been largely drawn. Later investigations have established the route taken by the Mound Builders of Southwestern Ohio to the regions of Northwestern Michigan.

Unfortunately the Museum does not contain enough specimens to afford a practical study of these interesting remains. All that the Museum contains is illustrated in Plate II. The spear or lance (7), from Posey County, Indiana, is as perfect as could be made with primitive implements, and as good as the ordinary workman could execute at the present time. It may justly be termed a very fine relic. A small hatchet (8), from White County, Illinois, is also a fine specimen. The group of four knives (9, 10, 11, 12), came from near Portage, Wisconsin. They have been hammered until they are quite thin, and purposely made for the attachment of handles. All the above mentioned relics are from the C. C. Baldwin collection.

Dr. J. P. Kirtland presented a chisel (13), which was obtained from the base of a mound, leveled in preparing the prison grounds at Columbus, Ohio, in 1831. A copper dirk or lance (14), presented by J. S. Dille, was found seven feet below the surface, in Ontonagon, Michigan, in 1855, while digging a cellar. A crescentlike implement (15), was found in 1865, on French river, north shore of Lake Superior. There are four beads (16), given by Colonel Whittlesey, taken from a mound on Sawtell avenue, Cleveland, in 1869. The D. C. Baldwin collection contains two beads (17, 18), and an unfinished hatchet (19), found with human bones and sixty-eight arrowheads, while excavating for a cellar at Charlevoix, Michigan.

Copper mining implies the use of implements for the purpose. There must be utensils for digging, and others for breaking and hammering the copper. Even if the surface of a mass of copper

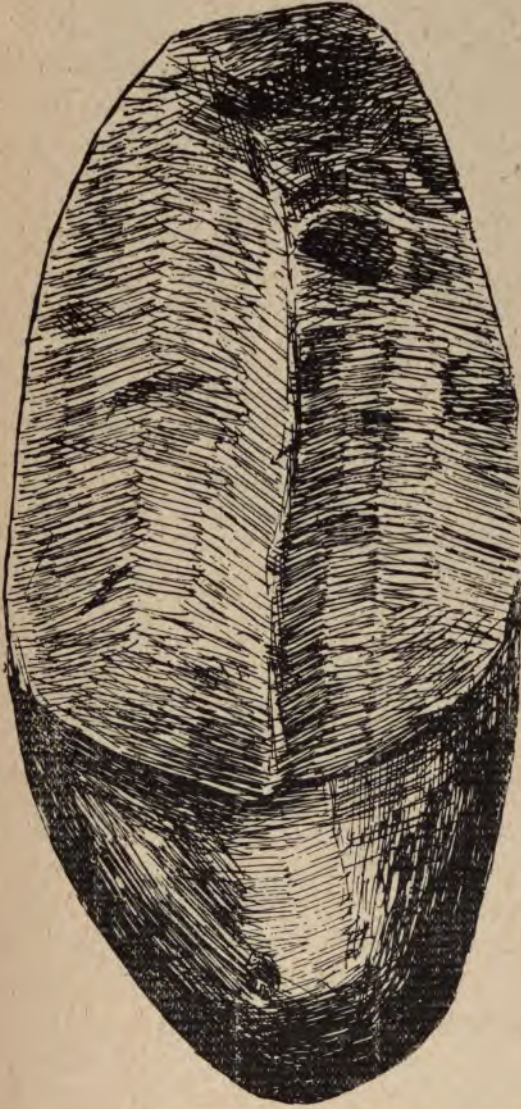
PLATE II.



were heated and then scaled by throwing on it cold water, there would nevertheless be a necessity for sledges. Implements of this kind at one time were quite numerous in the immediate vicinity of the ancient mines. One of these (Fig. 1), donated by Colonel Whittlesey, is illustrated in his "Ancient Mining on the Shores of Lake Superior," page 13. It has no appearance of having been shaped by man, and, doubtless, was picked up on the surface. It is 9 inches in length and 4 1-2 in thickness, and weighs 8 1-2 pounds. It was found in a copper mine known as "Central Mine." It has undergone rough usage, as may be proved by the broken part.

Colonel Whittlesey also donated a wooden shovel (Fig. 2), from the Waterbury Mine, near Eagle Harbor Point, Kewaunee, Lake Superior. The shovel is two feet in length and the greatest width of the blade is three inches. It has been worn obliquely.

In the work, above referred to, Colonel Whittlesey gives a section of the Waterbury mine, and an illustration of a wooden shovel taken from it. In the text he says: "In removing a part of the old burrow, Dr. Blake discovered several shovels, of white cedar, resembling the paddles in form now used by the Chippe-way Indians in propelling their canoes. Had these been found elsewhere, they would have been regarded as ordinary paddles, but in this place they had evidently been used as shovels. This is also evident from the manner in which the blades are worn. The blades are more worn on the under side than the upper, as if the mineral had been scraped together and then shoveled out, as is the practice of the miners of the present day. The shovels which were found beneath the water level were sound in appearance, and the strokes of the tool by which they were formed remained perfectly distinct, but on being dried they shrunk very



*Fig. 1*



*Fig. 2*

much, opening in long cracks, the wood retaining little of its original strength or hardness. A birch tree, two feet in diameter, grew directly over one of these paddles."

### PALAEOLITHIC IMPLEMENTS.

Implements known as palaeoliths belong to that period when men did not polish their weapons of stone. Rude stone implements are found wherever primitive man has taken up his abode, and also where the highest patterns of stone relics occur. The shape or degree of finish does not mark a stone a palaeolith. Its distinction depends entirely on its location. That period in history assigned to them by the archaeo-geologist is glacial and pre-glacial. The valley of the Somme, France, is one of the most noted places for palaeoliths. This valley presents the records of two drift periods, which are separated by a layer of fresh water deposits containing river shells. In the lower gravel, lying immediately upon the tertiary formation, are found the flint relics of a pre-historic people. Although these remains have been found in comparative abundance, yet the Museum possesses but fourteen specimens from that region, which were secured through the efforts of Rev. Dr. G. Frederick Wright and S. Prentiss Baldwin, Esq., and by them donated to the Society. These relics, from Amiens, are among the best that can be obtained. They are leaf-shaped (Plate III, 21), and are typical of those usually found in that vicinity.

The D. C. Baldwin collection contains three palaeoliths, two from Kent, England, and one from London. All of these evince some workmanship, showing that an effort had been made looking towards a preconceived shape.

As the American rude stone implements have been called palaeoliths, not always with just reason, it will be necessary here to remark that they take many varieties of shape. In working

or breaking them off, the contour is governed by the seam in the stone, or such layer as flakes generally represent. Hence the varieties and sizes must materially differ. Casting all these together the Museum contains several hundred, and with the exception of thirty-four, from Yorkshire, England, all belong to the United States, and almost wholly from Ohio and including Kelley's Island. Among these can any one be assigned justly to the palaeolithic age, and how does it compare with those of Europe?

There are two palaeoliths in the Museum that have become quite celebrated through the efforts of Rev. Dr. Wright. He has published illustrated descriptive accounts of these, both in his "Man and the Glacial Period," and in Tract No. 75 of the Western Reserve Historical Society. Owing to what has already been written it would, in this place, be a work of supererogation to go into a detailed account, and what is here added is only an abstract of what Dr. Wright has already placed before the public.

One of these, presented by Dr. Wright, was obtained by him from Prof. Asa Gray, who received it from Dr. John Evans, author of "Ancient Bronze Implements." It is a palaeolith from Amiens, France. The other, donated by W. C. Mills, was found by him in the terrace gravels at New Comerstown, Ohio, Oct. 27, 1889. It was found fifteen feet below the surface, the bank at that place having an exposure of twenty feet. Mr. Mills at once compared this specimen with other flint implements to the number of about 3,000, which he had collected in the same valley, but had none that resembled it. He was struck with its peculiar shape and glossy appearance, so characteristic of well known palaeoliths. Views of these implements are herewith given.

One of them (Plate III, 20) gives a front view of the New-comerstown implement. An edge view (Fig. 3, a) of this implement is given, with the comparative size of the Amiens implement, presenting both the face (b) and edge (c) surface.

The importance of the discovery of the New Comerstown implement is enhanced by the fact that this is the fifth locality in which similar discoveries have been made in America. In many respects this is the most interesting find, besides adding cumulative weight and force to the conviction that glacial man on this continent must be regarded as a reality.

It is beyond the limits of this paper to discuss the age of the Calaveras skull. Prof. J. D. Whitney, while conducting the geological survey of California, reported the finding of implements consisting of stone mortars and pestles, which occurred under the lava that flowed from the Sonora or Tuolumne Table Mountain. Under the same lava deposit, at Altaville, in Calaveras County, in 1866, the Calaveras skull, was discovered. Not far from the other localities, in the Empire mine, which penetrates the gravel underneath Table Mountain, was found, in 1887, by C. McTarnahan, a small stone mortar. The spot where it was obtained is about one hundred and seventy-five feet in from the edge of the superincumbent lava, which, at that point, is about one hundred feet in thickness. This mortar fell into the possession of Mrs. M. J. Darwin, and through the representations of Dr. Wright, that lady presented it to the Museum. It is unquestionably of the same age as the other finds in that region, including the Calaveras skull. The mortar, of a very fine grained granite, and ovoid form, not unlike a human cranium, when inverted, does not appear to have been purposely shaped. It probably was a boulder picked up along some river valley. At one point, answering to the occipital protuberance (carrying out the comparison) it has been pecked by some instrument and some-

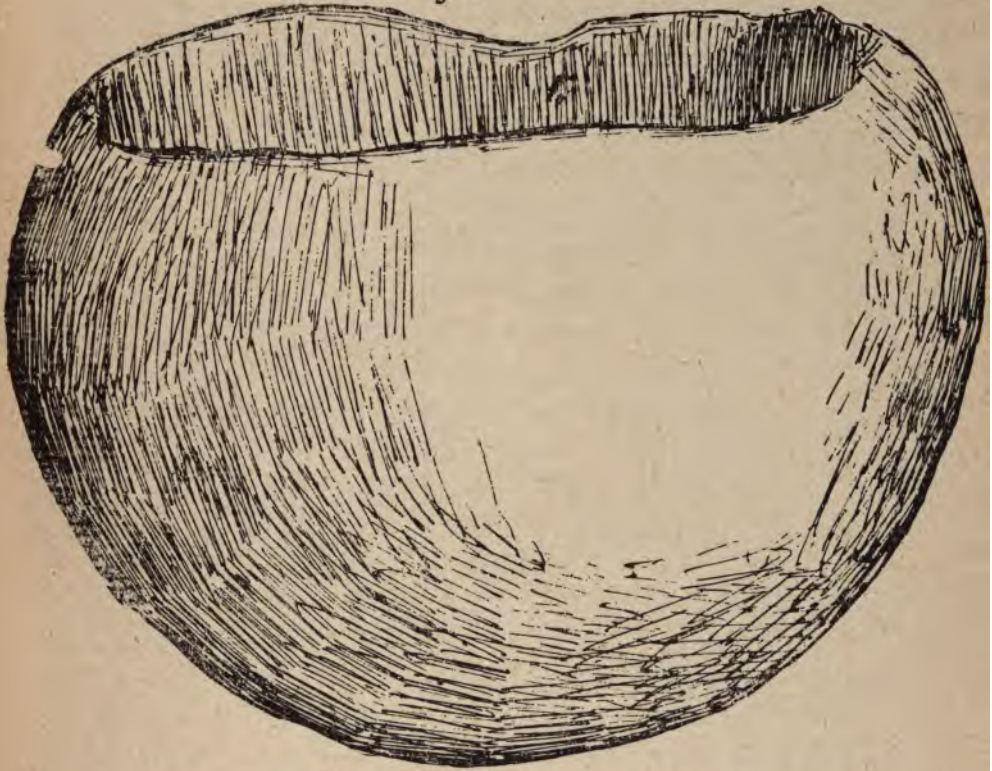
PLATE III.







Fig. 4



what flattened. The cavity (Fig. 4) is beautifully and symmetrically hollowed out to a depth of two and three-fourth inches, with a surface diameter four and three-fourth inches.

The importance of this mortar with the palaeoliths, now in the Museum, cannot be too highly estimated in the study of early man. Whoever writes on palaeolithic man in America will do well to examine personally these relics.

Belonging to the palaeolithic age there is a period known as the Reindeer epoch. Fortunately, through the gift of P. M. Hitchcock, the Museum contains remains from a cave at Men-

tone, France. These consist of a flint knife, five inches long, fifteen flint chips, or cutters, fragments of three tusks, unrecognized, and a portion of the lower jaw, besides quite a number of teeth of an herbivorous animal, apparently that of a goat, and two grinders of the horse, with fragments of other teeth. Until this department receives more accessions, the remains, for the present, must be regarded more as curios.

#### NEOLITHIC IMPLEMENTS.

While American palaeoliths are sought for and identified, it can hardly be said that a neolithic age was one of the marked peculiarities. Implements of almost every description, made of stone, are found polished, and with workmanship of a high order, but showing traces of different degrees of civilization. The Mayas, the Toltecas, the Peruvians, and other nationalities, displayed greater advancement than that of the Lake Dwellers of Switzerland. It would be proper to speak of the Mound Builders as being of the neolithic type, although confronted with the most plausible reasons to show that they had passed that stage.

The neoliths are represented by implements of stone, horn and bone from the lakes of Switzerland, mostly from Lake Zurich, although Baldegg, Locras, Luscherz, Schaffis and Schaffhausen contribute to the forty specimens in the D. C. Baldwin collection. Of the hatchets or celts, four are in stags' horn, three of which are from Lake Zurich. One of these (Plate III, 22) is as fine an implement as anything of the kind given in Keller's "Lake Dwellings." There is a perforated hammer (23), very hard and tough like serpentine; one end is wedge shaped, and in the middle is a helve hole circular throughout. The bore is accurate. The boar's tooth (24) may have been used for an ornament, although some, brought to an edge at the extremities, em-

ployed for cutting purposes. Among the bone implements (25, 26, 27) may be noted those used for awls, but one (28), though chisel-shaped, was used in dressing the hides of animals.

Of no less interest are the flint implements from the *kjokkenmoddings* of Denmark, consisting of 28 celts of various sizes, 4 chisels, 7 knives, 3 gouges, 2 hatchets, 1 polisher, 1 wedge and 1 lance. This collection consists of representative specimens and was secured by purchase. Belonging to the same epoch is an oyster knife from Ireland.

#### IMPLEMENTS OF STONE—CHERT.

The mounds of the Ohio and Mississippi Valleys would indicate a people who had taken great strides towards civilization. The contents of the mounds reveal works of art in stone of exquisite workmanship. The same also being found in graves and scattered over the general surface of the country, being richer in some than in other localities. There is a great variety of form, which was probably suggested by the purposes for which the implement was designed. While special varieties of stone were used for one kind of implement, yet all varieties were utilized for the same purpose. The following classification is adopted only for the purpose of showing the apparent object of the implement.

Judging by the frequency of its use, one of the most important minerals to savage and semi-civilized is flint, or chert. This mineral enters very largely into their weapons of warfare, the chase, and the domestic arts. They will go long distances in order to obtain it, and when secured it enters into merchandise. Ninety-five per cent. of the arrow and spearheads found scattered over the United States is composed of the different varieties of chert. When first quarried it is readily flaked and gives a keen edge, which is so greatly needed by man in an early state of society. The mineral is found in great abundance, thus adding to its intrinsic value.

**SPEAR-HEADS**—Great numbers of chert implements are found which, from their size, have been designated spear or lance heads. They present manifold shapes, and have been classified into lance, hunting and fishing spears. The first is formed without the notched or stemmed base; the second with the notched base, and the third, by a long tapering form. They are generally over two and one-half inches in length.

The Museum contains two hundred of all sizes and varieties. But if all the cherts of two and a half inches be included then the number would be greatly increased. While it would be of interest to give illustrations of all the types, yet it is hardly practicable. Some of the pronounced must suffice. In those given (Plate IV), all except one (29) are from the Whittlesey collection, and that one was taken from a mound in Cleveland. The longest one (30) in the Museum is from Posey County, Indiana.

**ARROW-HEADS**—Of all the relics in the United States none are more abundant than arrow points. Likewise these are the most numerous in the Museum, aggregating not less than three thousand, besides quite a collection of broken points not counted. Similar to the spear-heads they possess great diversity of form. Some are barbed, and have serrated edges; others beveled; others blunt, and most are sharp pointed. It is hardly necessary to classify them save to state that some are leaf-shaped, others convex-sided, with truncated base, others straight-sided, others triangular, some stemmed, and still others notched at sides. Some of the types are given in the accompanying illustration (Plate V), all of which are from the Whittlesey collection except the obsidians (31, 32), which are from the cabinet of D. C. Baldwin. The latter are from Blue Lakes, Snake river, Idaho, and appear to be the workmanship of the modern Indian. The Museum can boast only of eight obsidians. Of the arrow points many are made out of colorless quartz, jasper, carnelian and calcedony.

PLATE IV.

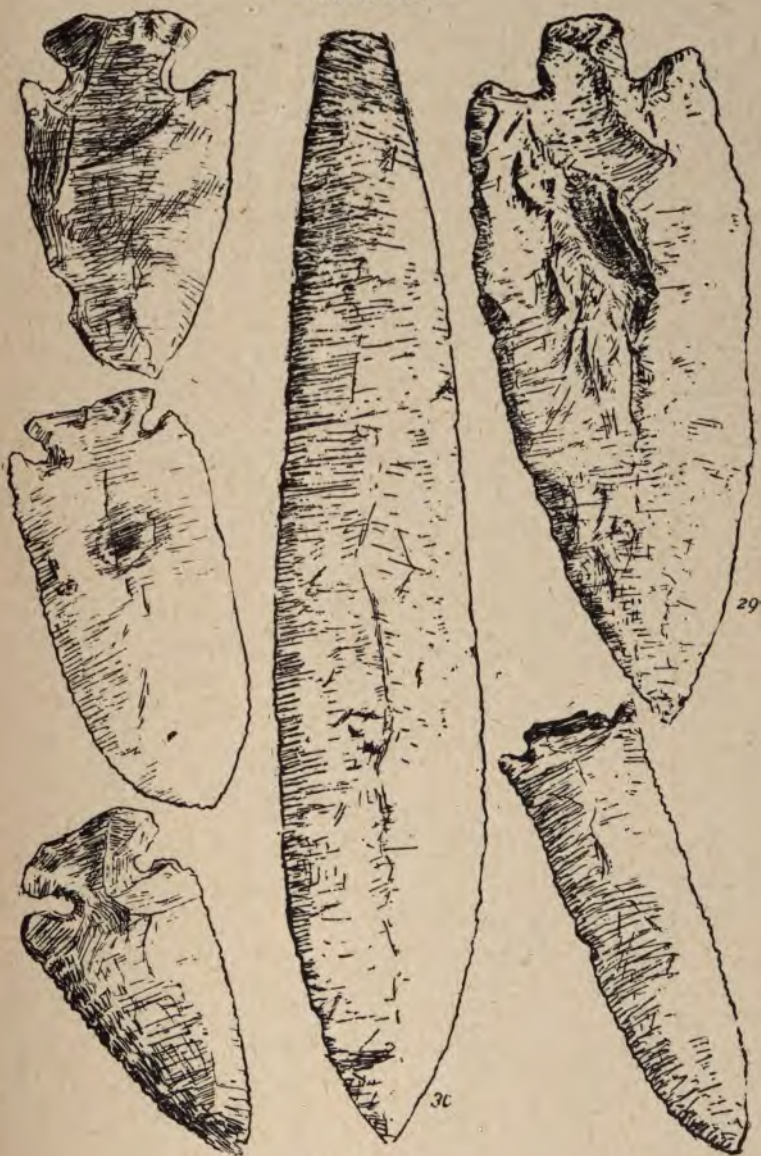


PLATE V.



KNIVES.—Knives and other cutting instruments are found with the various remains of man, whether in mounds, or in graves, or on the surface of the ground. They are principally of chert, but obsidian is met with occasionally. Some of these have edges almost as sharp as razors. Their pattern varies, some being semi-circular in form, and may be grasped in the middle. These flakes or knives are detached from the block either by a single blow, or else by pressure. The Museum is quite limited in these interesting specimens, possessing but twenty-five, all of which are superior. One of these (33) is an Aztec sacrificial knife of obsidian from the Island of Los Sacrificios, near Vera Cruz, Mexico. It was presented by Dr. F. J. Locke. Another knife of calcedony (34), with seven similar ones, was taken from a mound on the east bank of the Chagrin river, two and one-half miles below Chagrin Falls, Ohio. In the same mound were found a finely wrought pipe, several stone badges, seven copper beads, two pieces of mica, one perforated sandstone and a piece of lead ore. The knives were presented by R. Evans.

DRILLS.—There is a very interesting class of implements that have been called drills, perforators and rimmers. They occur from an irregular fragment of an elongated form to a well chipped, handsomely wrought bodkin. It is impossible to draw the line of demarcation between them and the arrow and spear-heads; for imperceptibly they run into one another. It has been assumed that the drills have been used for perforating purposes. This may be true. I have carefully examined hundreds of them in various collections, and in different states in the Union, but I have never seen a single one that clearly indicated such usage. If so used the implement would strongly indicate it, but their points and edges show no more of such wear than do the same features of an arrow point. It has been noticed, especially in

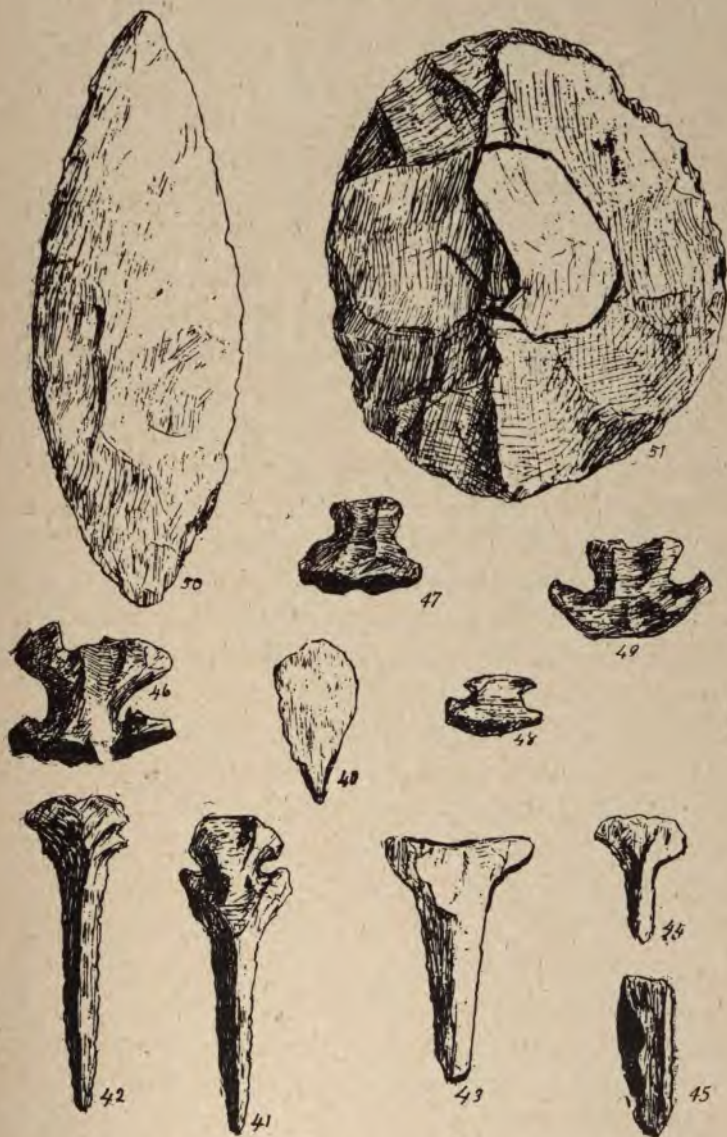


Butler County, Ohio, that they are generally found along streams, which would suggest that they had been used either for spearing or shooting fish. The seventy-three specimens in the Museum are of a marked character and would constitute an interesting feature in any collection. Those given in the illustration (Plate V, 35, 36, 37, 38, 39; Plate VI, 40, 41, 42, 43, 44, 45) are taken from a card which is marked as having come from different localities.

SCRAPERS.—Tools having been worked at one extremity into a convex or semi-lunar edge are said to have been used for cleansing skins, scraping and smoothing horn, bone and wood. Among the Canadian Indians boys use them on their arrow shafts, in order that, if by accident another person should be struck, there would be less liability of danger. In all probability they were made out of broken arrow and spear-heads. It is difficult to tell the dividing line between this class and that of arrow and spear-heads. All the gradations between the blunt, oval-shaped scraper and the finest point of an arrow-head may be noticed. There are fifteen clearly defined specimens of this class, some of which may be seen in the accompanying illustration (Plate VI, 46, 47, 48, 49), which are pronounced in type, both as to size and general form.

LEAF-SHAPED IMPLEMENTS—Tools of this description vary greatly, the one from the other, even as the leaves so vary; and in size from the smallest arrow point to that class denominated hoes. In the enumeration I have classed the small ones as arrow-heads, where, doubtless, they rightly belong. Many have regarded these implements as primitive money, and the party who bartered for them, fashioned the same with such tools as appealed either to his fancy or necessity. It is well established that they were carried over the country in quantities, for

PLATE VI.



they have been met with in hidden places. One cache contained six hundred. But the great majority are as carefully wrought as the ordinary lance-head, and bear all the appearance of having been finished. There are forty typical specimens of this class, two of which (50, 51), from the D. C. Baldwin collection, are here given.

DIGGING TOOLS.—The largest size of the cherts are classed under the heads of hoes and spades. These tools are usually ovoid in shape, expanding considerably at the cutting edge, with a tapering or truncated opposite extremity. Still others have an oval outline, but truncated and laterally notched at the end opposite the blade. These tools were probably attached to handles, and were used in gardens. Of the thirty specimens, twenty belong to the C. C. Baldwin collection, most of which came from Cobden, Illinois. Thirteen of them, varying in length from six to sixteen inches, when struck by a wooden mallet, produce such notes that one well skilled could produce any tune. Of the two typical specimens, one (Plate VII, 52) from Troy, Tennessee, and the other (53) from Phillipstown, Illinois, give a fair representation.

WEDGES.—In all probability a fair percentage of the chert implements was used for hatchets. This class take a sharp edge, which would answer for cutting purposes, the same as other weapons of different stone. The form is the same as those generally so denominated. The Museum contains many of this description. Two of them, in the C. C. Baldwin collection, are very fine specimens, with polished or glazed edges, one of which is from Cobden and the other from Phillipstown, Illinois. They bear a striking resemblance to the flint celts of Northern Europe.

#### IMPLEMENTS OF STONE OTHER THAN CHERT.

In the drift and along river bottoms are found stones ground

PLATE VII.



thickness in proportion to its length. The third (56), from Minerva, Ohio, is of compact greenstone. The edge, somewhat broken, appears to be the result of a recent fracture. The axe with a double blade (57) is from the <sup>Peter Neff</sup> Hatch collection, and is composed of a very hard compact slate, almost equal to greenstone. The inner edge has a groove. The marks of the cutting instrument, with which it was dressed, appear all over it. It came from Knox County, Ohio.

HATCHETS.—This class, sometimes called celts, is very abundant, being generally found on the surface, and occasionally in mounds. The hatchets are both rude and polished, and occur on the sites of Indian villages and in graves. The pattern varies but little, but in length they occur from one to fourteen inches, being made from different kinds of stone, such as serpentine, syenite, diorite, hornblende, slate and other material. Usually they are brought to a symmetrical edge, ground from both sides, with rounded contours at the opposite extremity. They have been used for the double purpose of domestic utensils and tomahawks in war. The larger specimens have been called bark-peelers. Of the four hundred and sixty specimens, only three specimens will be referred to. One of these (Plate IX, 58), made of porphyry, found at Brecksville, Ohio, in 1812, is rather singular for its length. When of this length they are usually broader; but this one, near the center, is almost round, and has the appearance of an immense chisel. Another (59), of compact greenstone, is of the usual type of the larger specimens. It was found at Independence, Ohio. The small one (60), from Kelley's Island, is of the exact pattern as the last (59) described.

Allied to this class is another implement found at Santa Cruz, California. It is thirteen and one-fourth inches in length, with greatest breadth of four and one-half inches. It is brought to

PLATE IX.



an edge after the same manner as hatchets in general; but the opposite end is formed like a chisel.

**BATTLE-AXE.**—An implement (Fig. 5), called a battle axe, found in June, 1888, in the valley of Red Brook, about one mile from Lake Erie, and five miles from Ashtabula, by O. F. French, and by him donated to the Museum, is made of a fine grained, light brown slate. The implement is twenty inches in length by four in breadth. On one side of the extremity of the handle are cross markings. The implement was well wrought, and exhibits hard usage.

**CHISELS.**—Owing to the resemblance to an ordinary chisel another class of tools has taken that name, and doubtless was used for that purpose. It is wedge shaped, of an elongated form and of comparatively small size, with the greater diameter in the middle. This class is not abundant, and is much sought for by collectors. Of these carefully wrought implements the Museum contains but thirteen specimens. Only one (61) is here given, composed of porphyry, and found at Put-in-Bay. On the same plate is an illustration of another tool (62), of siliceous material, found in Posey County, Indiana. It is flat on one side and ovoid on the other. The edge has been ground from both sides, and well polished. While, in all probability, this is a chisel, yet it may have been used in dressing hides, or else as a polisher in the finer works of art. It belongs to the C. C. Baldwin collection. In addition to the above should be mentioned three very fine chisels from New Caledonia, which are probably modern, composed of a fine grained dark colored slate, received through purchase, the longest being nine inches in length and the shortest eight.

**GOUGES.**—The Museum possesses but one gouge and one adze; but the latter might be classed with the former. The





gouge (63) is made from a fine grained greenstone. It was used for removing charred portions of wood in hollowing out canoes, and in cutting stone where grooves or cavities were required. This class is catalogued among the rarer implements.

**HAMMERS AND MAULS.**—Hammer-heads and hammer-stones, consisting of round, or oval, and grooved boulders of quartzite, granite, greenstone and other varieties of rock are found in more or less abundance, but are comparatively rare in some localities. The best field in Ohio is Darke County, which is a little north of the line of the Mound Builders. Those having grooves, for the most part, are carefully wrought. The groove is not always carried around the stone. Others are balls, varying from the symmetrical to those of great irregularity of form. When of large size they are called mauls.

The Museum contains but few mauls, although its collection of hammers is quite large, the rougher specimens predominating, thus affording a fine opportunity for the study of this class of art.

**PESTLES.**—Pestles are almost as common as the grooved axes. Butler County, Ohio, is very rich in them, and, perhaps, surpasses any other locality. This class also presents a variety of form, the usual one being a bluntly pointed cone with a knob-like expanse at the base. The usual type may be seen in the accompanying illustration (Fig. 6). The cut has been made to



*Fig. 6*

do duty in many different publications. The original specimen is in the C. C. Baldwin collection. It is composed of quartz. A large per cent. of this class of utensils is a simple cone; still others have the knoblike expanse at both extremities, one always being larger than the other. Of the cone-shaped the Museum contains fifteen, and also the same number of knob-shaped.

Closely allied to the pestles are the rolling pins, which are long, straight and round, tapering towards the ends. They are smooth and often well polished. Of the eleven in the Museum, the longest—in the Johnson collection—is twenty-one inches.

MORTARS.—The pestle implies a mortar. The cultivation of maize among the tribes of the United States was quite extensive at the time of the discovery, and this necessitated the application of grinding utensils. Experience, sooner or later, would demonstrate the necessity of having cavities for holding grain whilst it was being crushed. These cavities, when large enough to receive a pestle, are called mortars, although, generally speaking, they vary from a slight depression in the stone to the ponderous deeply hollowed vessel in a permanently located boulder. Of what might be termed true mortars, the Museum contains eleven, the finest of which, more like a well rounded bowl, is the gift of the Smithsonian Institution. It is composed of fine grained sandstone, and was found on San Nicholas Island, California. Another, deserving of special notice, found at Bedford, Ohio, and presented by A. Beach, has a symmetrical cavity four inches in depth, in a coarse sandstone nineteen inches in height, nine by ten inches at the top and twelve by fifteen at the base.

Not in the above enumeration is another class, consisting of a large collection of symmetrical cavities of slightly hollowed nessesels, varying from a few inches to a foot in diameter, mostly

from Kelley's Island, in the Johnson collection. Some of these depressions are gradually raised toward the center, and are as symmetrical as though they had been turned. Accompanying them are many flat stones, either used in the culinary art, or else to support the pelts of animals during the process of tanning.

The metate, belonging to the general class of mortars, is an especially interesting utensil. Although the collection is small, numbering but seven, yet they are of value in the study of anthropology, and whosoever has not seen vessels of this description cannot afford to pass them over. All are composed of coarse sandstone, except one of steatite. Four were obtained in Colorado by Judge C. C. Baldwin, and one, donated by the Smithsonian Institution, is from Uintah Valley, Utah. The largest, in the C. C. Baldwin collection, is twenty-two by sixteen inches, with a cavity of nineteen by ten inches. There is still another (Fig. 7), from the Pueblo of Parowas, southern Utah, which shows a peculiar conformation. The stone is seventeen by ten inches, with the main (a) cavity ten by eight inches. After bringing the line of the cavity to a raised point in the stone, the artisan then added a slightly depressed cavity (b) at the opposite extremity.

CUP-STONES.—The fifty-one sandstones containing cuplike depressions, vary in number of these cavities to each stone, from one to twenty-one. Some, containing but one cavity, show great care in their execution, both in the general form of the stone and in the depression. By some this class has been called paint-stones, and by others regarded as used for holding nuts while being broken or cracked. Some of the pestles are so constructed that the pole would admirably fit into these cavities, which would suggest that they were also used for grinding purposes. The largest of all these stones (Fig. 8) is twelve inches in length by nine in width, with a thickness of four, with the reverse side hollowed out.

Fig 7.



Fig. 8.

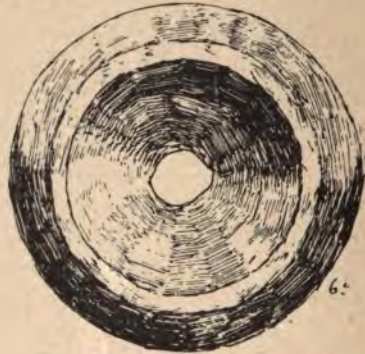
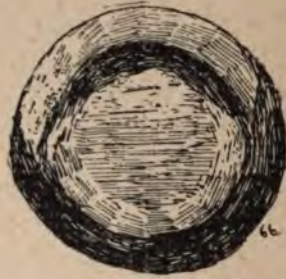


DISCOIDS.—All of the discoids, ten in number, belong to the C. C. Baldwin collection, except one which is in the Hatch cabinet. Although found from Ohio to Peru, in South America, yet it may be said that the latter specimens are rare, even in the regions inhabited by the Mound Builders. In the accompanying plate (X) all the figures are taken from specimens in the C. C. Baldwin collection. One (64) is from Stark County, Ohio, composed of quartzite, with a narrow seam of colorless quartz running through it, is perforated and is two and one-half inches thick by four in diameter. Modern art could not improve it. The second (65) differs from the first in having a grooved instead of a slant cavity. The surface is marked by having a flat projection. It is of dolorite, one and five-eighths inches in thickness by three and three-fourths diameter. It was found in Washington County, Ohio. The third (66), composed of impure jasper, from Posey County, Indiana, is not perforated. The cavities are equal, and the stone three inches in diameter by one in thickness. An irregular (67) disc, the smallest in the collection, appears to be unfinished, while the remaining one (68), though having no signs of a cavity, is finished, but probably used for the same purpose.

This class of relics has also received the name of chungke, and their use is thus described by Adair:

“The warriors have another favorite game, called chungke; which, with propriety of language, may be called ‘running hard labor.’ They have near their state house a square piece of ground well cleaned, and fine sand is carefully strewed over it, when requisite, to promote a swifter motion to what they throw along the surface. Only one, or two on a side, play at this ancient game. They have a stone about two fingers broad at the edge, and two spans round; each party has a pole of about eight feet long, smooth, and tapering at each end, the points flat. They set off abreast of each other at six yards from the end of the play ground; then one of them hurls the stone on its edge, in as direct a line as he can, a considerable distance toward the

PLATE X.



middle of the other end of the square; when they have run a few yards, each darts his pole, anointed with bear's oil, with a proper force, as near as he can guess in proportion to the motion of the stone, that the end may lie close to the stone—when this is the case, the person counts two of the game, and, in proportion to the nearness of the poles to the work, one is counted, unless by measuring, both are found to be at an equal distance from the stone. In this manner the players will keep running most part of the day, at half speed, under the violent heat of the sun, staking their silver ornaments, their nose, finger and ear rings; their breast, arm and wrist plates, and even all their wearing apparel, except that which barely covers their middle. All the American Indians are much addicted to this game, which to us appears to be a task of stupid drudgery; it seems, however, to be of early origin, when their forefathers used diversions as simple as their manners. The hurling stones they use at present, were time immemorial rubbed smooth on the rocks, and with prodigious labor; they are kept with the strictest religious care, from one generation to another, and are exempted from being buried with the dead. They belong to the town where they are used, and are carefully preserved.”—History of North American Indians, p. 401.

PENDANTS AND SINKERS.—The two grooved and one ungrooved and four cones, in the Museum, made of stone, are similar in form to those of hematite, previously mentioned. It has not been positively determined for what purpose these objects were used. It has been suggested that their purpose was for weighting fishing nets, but it is hardly probable that so much time and care would be bestowed upon them, when the danger of losing them is considered, and especially when rougher weights would equally answer the intention. As hematite largely enters into this class it would be reasonable to infer that these objects were used for ornaments, or else occupied a place in the civic ceremonies, or medicinal incantations.



*Fig. 9.*



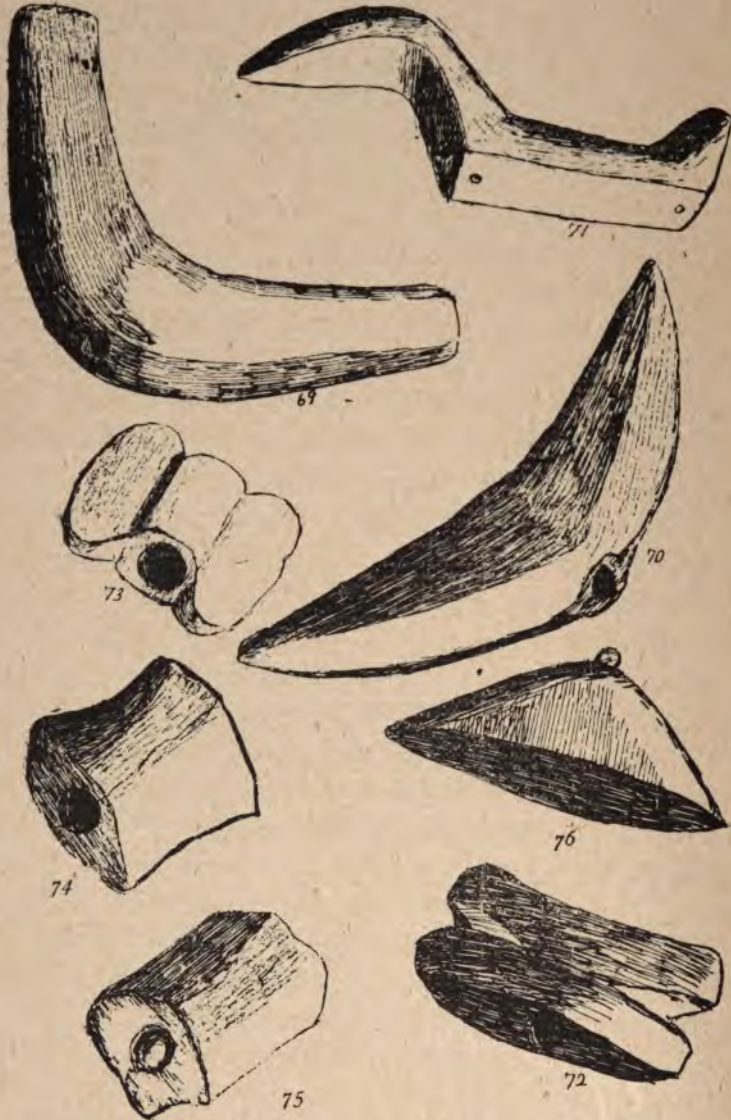
THE GAME OF CHUNGKE.

There is a class of implements made of pebbles with an oblique hole near the circumference of the stone. As forty-four of the forty-six specimens in the Museum are from the Worden-Warner collection, it is not unlikely that they were used as net sinkers. Although they were obtained near the shore of Lake Erie, that, of itself, does not establish this purpose; for, notwithstanding the great number of relics from Kelley's Island, not one of this class is therein contained.

DRILLED CEREMONIAL IMPLEMENTS.—Under this head may be counted forty specimens, nearly all of which are of a fine grained slate. They do not convey the impression that they are works of utility. It is possible that they were used as insignia of rank in such religious or other ceremonies as had been adopted by the tribe. They are of many different forms, the holes well drilled, and the implements polished with care. If the perforations had been made for the reception of handles, then such use for which they were required bore no strain, for an oblique pressure would readily produce a fracture.

All archaeological collections contain this interesting class, and space will here be given for but few, all of which, save one, are from the C. C. Baldwin cabinet. Two (Plate XI, 69, 70) are somewhat similar, the finish on either side being the same. Both are of ribbon slate, the first from Stark County, Ohio, and the other from Willoughby. The birdlike form (71), from Ash-tabula County, Ohio, is of a fine grained sandstone, but has no particular markings. In the D. C. Baldwin collection is another having eyes protruding from the head, which stone, however, may be intended to represent a deer. There is a peculiar form (72) somewhat similar to a double blade with the extremities split, composed of a dark compact slate. It is from Carroll County, Ohio. Another (73), with a double blade, from Posey

PLATE XI.



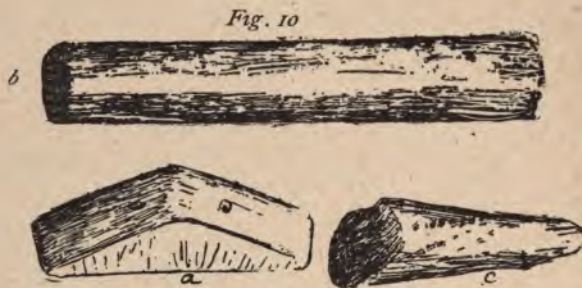
County, Indiana, composed of sandstone, has a regular perforation through the center, and the whole symmetrically wrought. There is a specimen (74), from White County, Illinois, composed of translucent ferruginous quartz, has sides or wings corresponding to wedges, but exhibit a slight inward curve. Near it (75), and composed of the same material, is a four-sided relic, depressed in the center, and with a core at one extremity, proving that the bore had been started. As these perforations had been made with sand and reeds, the time required to finish the incomplete one would seem almost incredible. It was picked up in Posey County, Indiana. Implements are also found with a protuberance at the center of the curve, and perforated at the extremities. The specimen here given (76) is from the D. C. Baldwin collection, and found near Elyria, Ohio.

PIERCED TABLETS.—Relics of this description should be classed with those just described. One is just as much a ceremonial stone as the other. They are of various shapes, great regularity, finely finished and pierced with from one to several holes. Usually they are of a hard, dark variety of slate, although the greenish-striped variety does not infrequently occur. When of mottled stone they are very pleasing to the eye. The Museum contains two hundred and five perforated and fifty-one unperforated tablets. If the perforated had been used for domestic purposes, such as sizing thread, more or less wear would be indicated; but no such marks are visible. Some have called them "peep-stones," believing they were used to assist the eye in seeing at a distance. The fact, that they do so assist the vision, lies in the cutting away of the light, except that which directly falls on the iris, thus concentrating the rays.

Special illustrations are here given of but few of the many varieties, and no particular description is needed. All but two

are from Stark County, Ohio. One of these (Plate XII, 76) is from Carroll County, Ohio, and the other (77) from Auburn, Ohio. The one with a double flange (78), on both sides, is notched on its extremities, bearing the number of 37 and 56 indentations on the one side and 29 and 35 on the other. Whether it is a record or only fancy, it is impossible to determine. Peculiarly notched is still another (79), of triangular shape, composed of brown slate. The specimens on the plate are from the C. C. Baldwin collection.

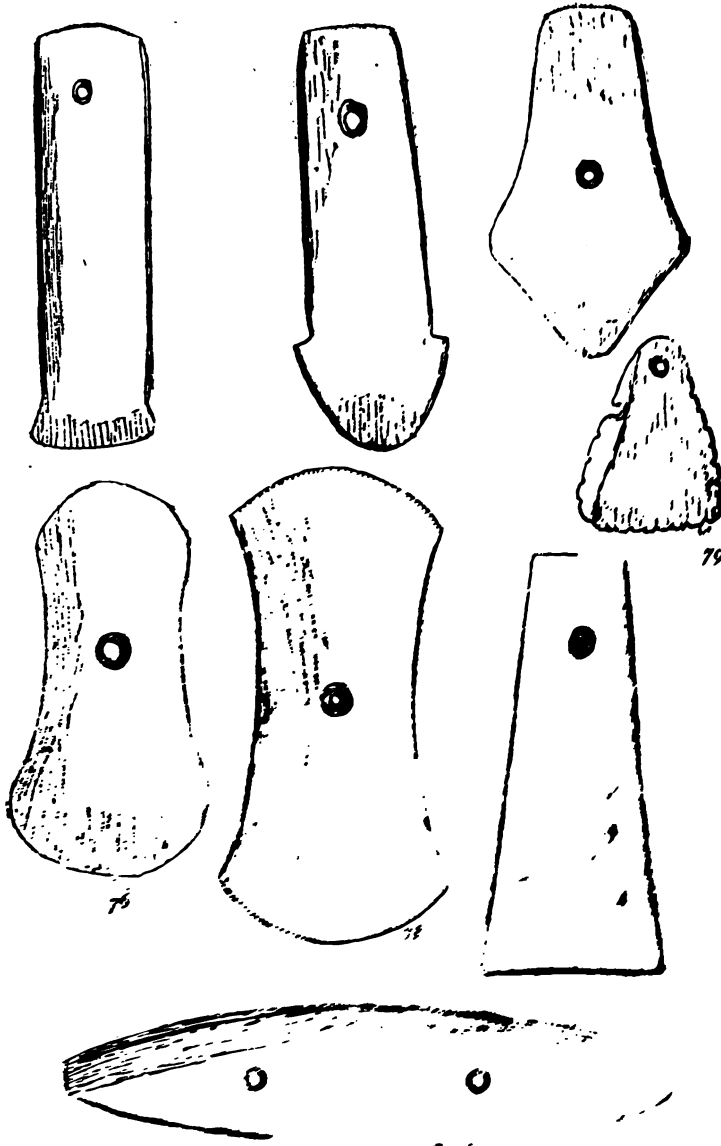
BOAT-SHAPED ARTICLES.—The seven specimens of this class are solid, of conical form and pierced with tapering holes towards the extremities. Four are in the Worden-Warner collection, and are made of a light colored limestone. Of the remaining three one is from Bath (Fig. 10, a), another from Ken-



ton, Ohio, and the last unknown. All are well finished and exhibit no wear. Their purpose appears to have been ornamental.

TUBES.—The Museum contains nineteen specimens of that class described as tubes, varying in length from two to seven inches, cylindrical in form. The Worden-Warner collection

PLATE XII.



contains four specimens, two of which have large bores until near the opposite extremity, when they are suddenly reduced from seven-eighths to one-fourth of an inch. The illustration (b) does not show the bores at both extremities. Their use is enigmatical. It has been conjectured that they were used as spyglasses, while others have maintained that the medicine men used them for exorcising evil spirits.

There are still other forms, but not exactly of the same special class, having a very narrow bore, and appear to have been for an entirely different purpose. One of these (c), partly perforated at either extremity, will indicate the general character. It was probably ornamental.

PIPES.—Every collector of pre-historic remains puts forth special efforts to obtain as many pipes as possible, for this class is a desideratum in any cabinet. Probably more attention has been given them than to any other one class. On this account frauds have been perpetrated to so great an extent that one must handle every specimen with suspicion that is advanced for sale. The practiced eye readily detects the imposition, because it does not afford the marks that can only be produced by age or long usage.

Upon the pipes the aboriginal artist displayed his utmost skill. As the Museum contains a great variety of pipes, and as the study of them is of special importance, because it offered the primitive artist an unlimited scope for the display of his skill and ingenuity, a wider range will here be taken than that accorded to the other classes of relics.

The C. C. Baldwin collection contains fourteen specimens, no two of which are alike, all of which are figured in the accompanying drawings. The first (Plate XIII, 80) is a hard, reddish colored stone, similar to the nucleus sometimes found within "eagle

PLATE XIII.

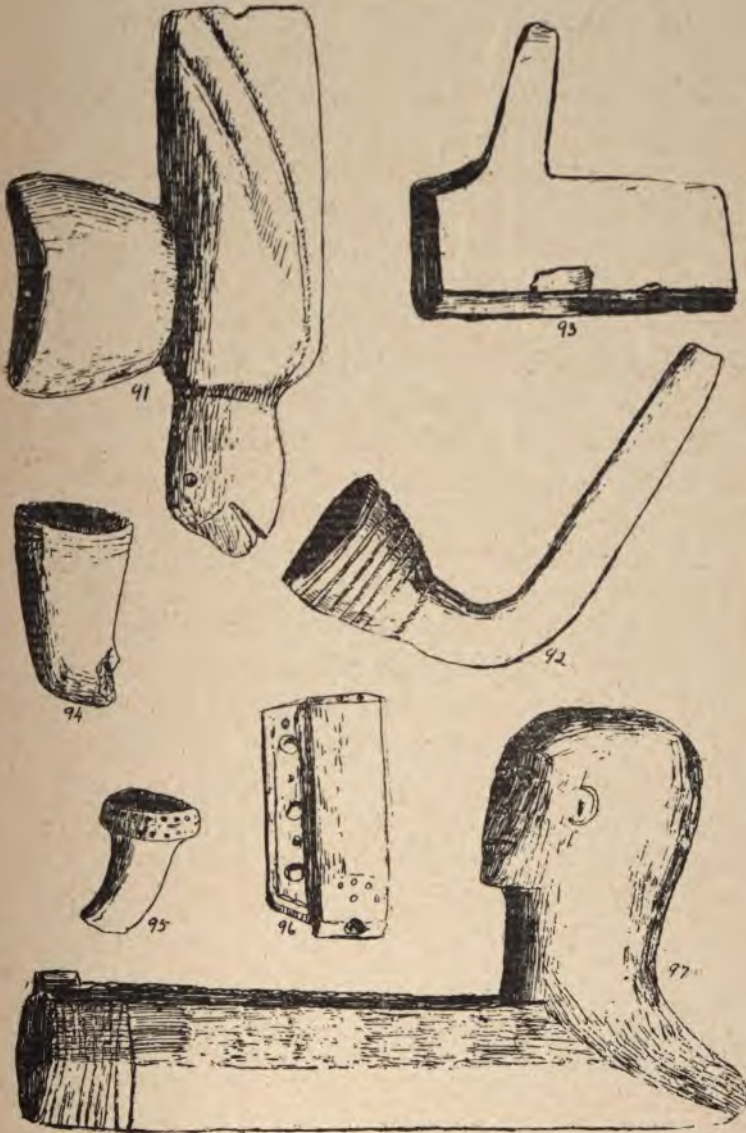




stones." It is from Monroe County, New York, and represents the face of some animal, but not sufficiently distinct to determine it. From the same locality is another (81) of silicious stone, with a depression on the side of the bowl, probably broken off after the pipe had been lost. The one (82) of coarse sandstone has the perforations for both stem and bowl unfinished. Each cavity slants to a point. The top of the stem has thirteen notches on one side and fifteen on the other. Its locality is unknown. The fourth (83), from Troy, Tennessee, made of burnt clay, is plain and of coarse workmanship. The one of coarse sandstone (84), location unknown, is encircled by grooves or rings irregularly placed. The one from Rockport, Ohio, (85), composed of slate, displays some artistic taste. The pipe proper is minus the bowl, and the ornamental part on the stem is but fragmentary. Another (86), from Carroll County, Ohio, made from hard, brown slate, is symmetrical and polished. The eighth (87), of a fine grained dark sandstone, from same county, smooth upon the circular edge, is similarly ornamented on both sides with scroll work and slight cavities. The ninth (88) and tenth (89) from Monroe County, New York, are of thoroughly burned pottery. One is ornamented by scroll work, with the face of a bird. Another (90), from Evansville, Indiana, made of fine grained steatite, is simple in its form. The steatite (Plate XIV, 91), from Posey County, Indiana, is a carving of a grammiverous bird. Another (92), of burnt clay, from Monroe County, New York, has rings around the bowl. The last (93), from White County, Illinois, made of catlinite, is from a plain block, with part of bowl missing. It is quite modern.

Exclusive of those of metal, the D. C. Baldwin collection contains seventeen pipes, which next invite our attention. Some of these are antique and others quite recent, but all of aboriginal

PLATE XIV.



art. Of these two (94, 95) made of pottery, have a little pretention towards ornamentation. One (94) is from the Shelter cave near Elyria, Ohio, and the other from Sheffield, close by. There are two of steatite. One (96), a Chippewa pipe, has the bowl part extending the whole length, but near the base, suddenly converging to a narrow opening. The raised part on the outer face of the pipe has three perforations with small cavities between. The exterior part has scroll work, likewise the interior face of the bowl. While the pipe displays ingenuity, yet the workman does not display an experienced hand. The other (97), also a Chippewa, is a fine piece of carving. The bowl represents a human head, while the end of the stem, on both sides, has raised lines, and the top, on a raised center, has cross-lines. Another group (Plate XV) needs but little explanation. They are all Chippewa, and composed of catlinite, except three (103, 104, 105), which are of fine grained sandstone, two being tinged with red and the other (104) brown. The first (98) has a raised tongue on the stem, characterized by thirty-eight notches, which appear to have been made solely for ornamentation. The second (99) has all its markings fresh and sharp, and still possesses its wooden stem (two feet in length), and has some pretensions towards regular ornamentation. Two others (100, 102), respectively represent the head of an eagle, and the head of a horse, with the bridle. Still another (104), although plain, has the four sides beveled towards the base. The remainder of the D. C. Baldwin pipes are figured in Plate XVI. The largest (106) belonged to the noted chief, Crazy Horse. Near it (107, 108) are two Chippewa pipes. Then follows one (109) from Sheffield, Ohio, of fine sandstone, with stem broken off. On opposite sides of the bowl are a series of parallel markings. A very fine pipe (110), from Hillsdale, Michigan, of greenstone, is highly

PLATE XV.

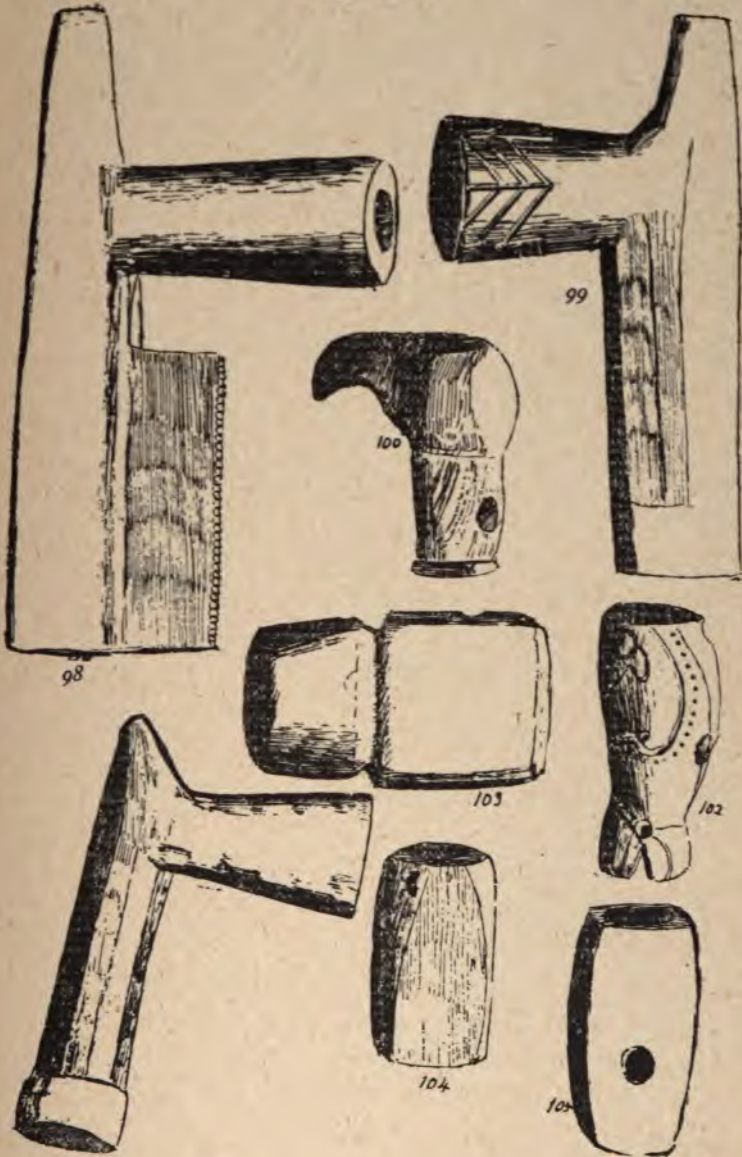
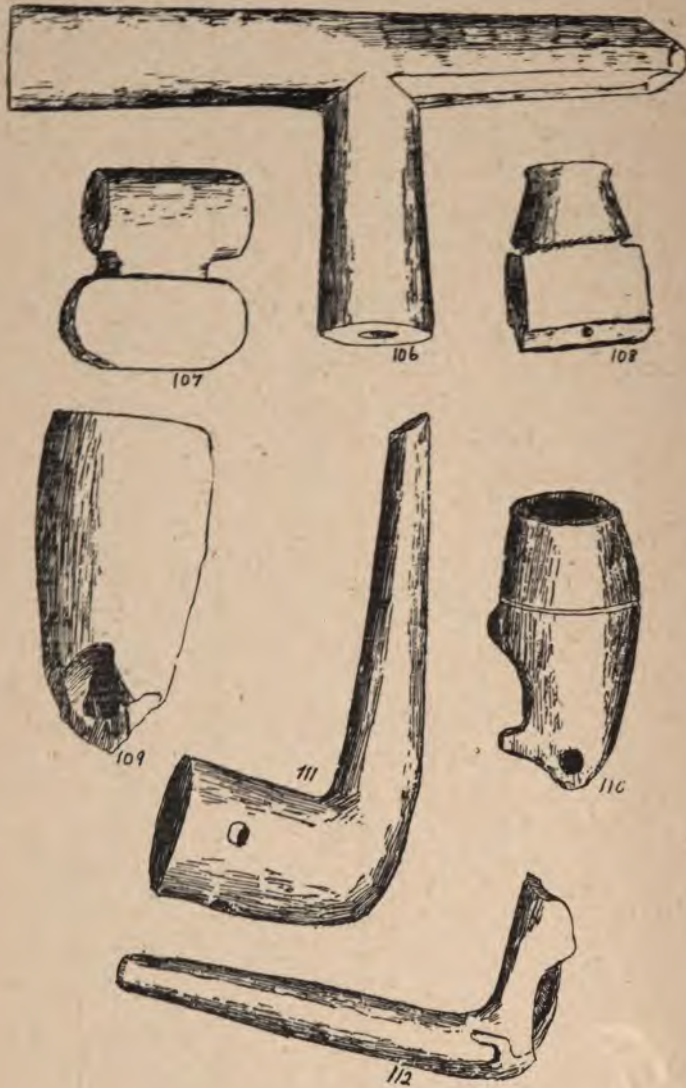


PLATE XVI.



polished, with some effort at ornamentation. A pottery specimen (111), with four cavities, at regular distances on the sides of the bowl, is from an Indian grave in Lorain County, Ohio. The last (112), taken from a mound four miles north of Hamilton, Ontario, is of a hard flintlike stone. The face of the bowl is gone. Along the under side of the stem is the posterior part of a lizard.

<sup>Peter Nerr</sup>  
The ~~Hatch~~ collection contains ten pipes, all of which are given in the engravings. The first (Plate XVII, 114), found on Drummond's Isle, Lake Huron, made of steatite, is irregularly notched at the base and cross-lines on the same protuberance. The next (115) is of a very coarse grained catlinite. It was purchased from an old Chippewa, August 2, 1868, in the harbor of Superior City, Lake Superior. It still contains the ashes that were in it when taken from his mouth. The next (116) was purchased from Shawanaw, a Chippewa chief, at Sault St. Marie, May 8, 1858. Many persons had endeavored to procure it from him. He greatly disliked to part with it, and when he handed it over, said, "Now I smoke white man's pipe." It has regular scratches on the outer face of the bowl, and on its inner face is a rude effort towards drawing the human face. The next (117) is of catlinite, but with no special marks. Close by it (118) of sandstone is one of peculiar shape. It is drawn to an ovular edge, and on both sides are figures almost identical, with borders on the curve, and the edge notched. A plain one (119) follows, with the stem broken off. It is of a light colored slate. Another (120) of greenstone, with an oval base and bowl cylindrical, is a good specimen well polished. Still another of catlinite (121), purchased of an old Chippewa Indian, in 1858. He took the proceeds of the pipe and purchased whiskey. When reprov'd for his intemperate habits he replied: "Me too much drunk. Me

PLATE XVII.

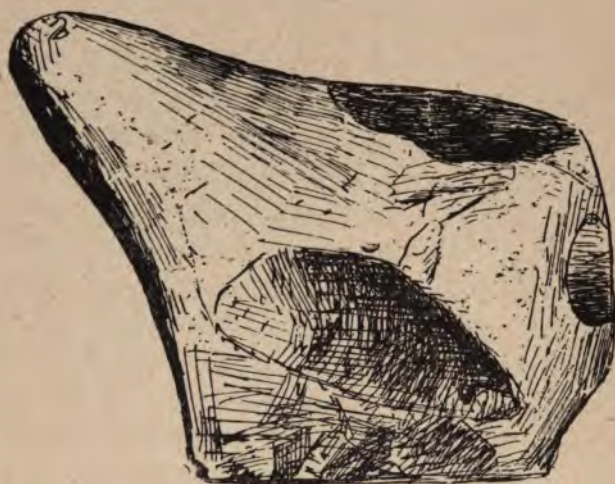


so good big drunk." If the remaining pipe (123, Plate XVIII) is aboriginal, then it has departed so much from other types, and in the physiognomy of the man, so pronounced a European, that the artist must have derived his lessons from the white man. Of its history there is no record.

For the study of pipes the Worden-Warner collection presents the best field. Casting out all doubtful cases, there are sixty-nine specimens, showing all grades of manufacture from the incomplete to the finished pipe, and also all varieties of material from pottery to quartz. This collection exhibits the fact that the stone was shaped before the cavities were made. Of the finished pipes there are eighteen; of the same class, but fragmentary, the number is seventeen, and the rest shows the various grades of incompleteness. While it would be desirable to illustrate all in this cabinet, yet nineteen must suffice. The first (Plate XIX, 124), of sandstone, has been worked in all its parts, but the cavities are not fully rimmed out. It very closely resembles the many perforated net-sinkers in the same cabinet. The next (125) is a light colored slate, complete, as is the following (126) of sandstone. The bowl of another (127) is complete, but the cavity for the stem has not made the connection. This one is of limestone, hard and compact. One of sandstone (128), has the cavities complete, with three notches on the edge. There is a flaw (a) in the stone. The next (129) is a well worked quartzite, slightly mottled. The one of pottery (130) has regular indentations on both sides of the stem. Still another (131) is of quartz, with bowl just started. There is a quartzite (132) representing a perched owl. Neither the eyes nor claws have been started, but a slight perforation was begun for the bowl on top of the neck, but nothing corresponding for the stem. Otherwise the pipe is complete. Of



PLATE XVIII.



122



123

PLATE XIX.



124



125



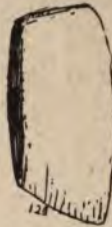
126



127



128



129



130



131



132



133



134

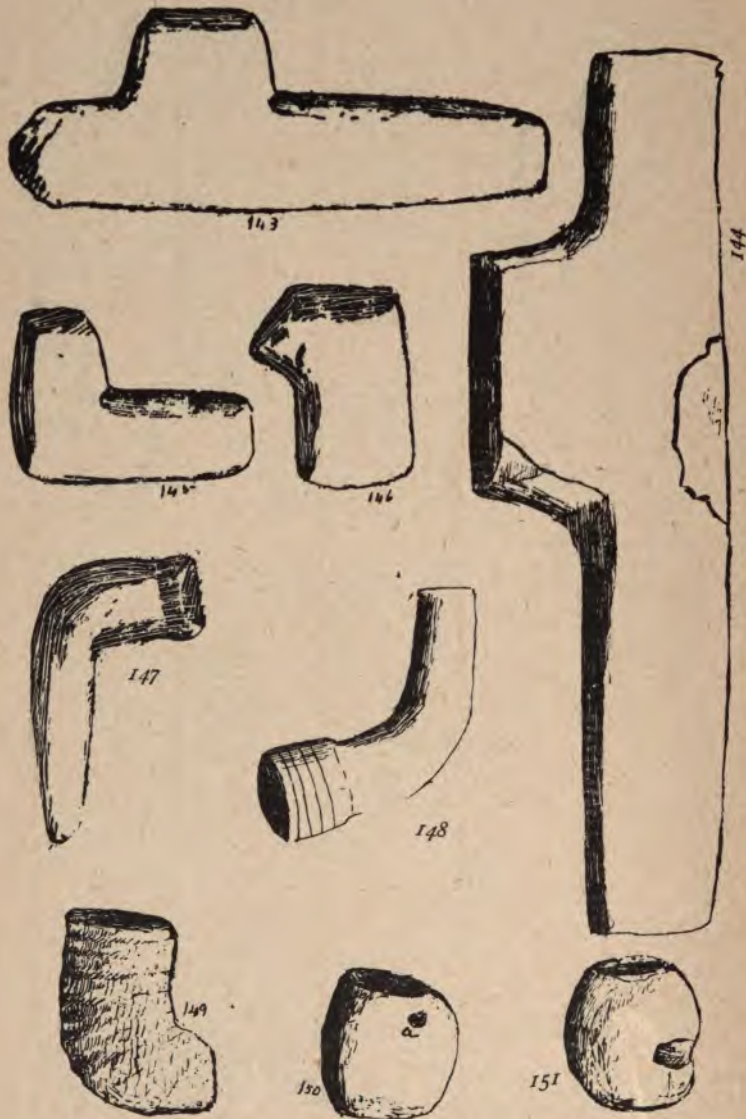
the same material (133) and representing the same bird, but less complete is another. Some polishing has been done with the bowl half completed. The next (134) is still more rude, the head gone, and only one spot polished. It is also an owl pipe. Another (Plate XX, 135) gives the owl complete, even to the raised feathers on the head, thus representing the horned owl. It is made from a very hard clay slate of light color. Another owl (137), of conglomerate rock, represented as perched upon a limb, is perfect, save a portion of the head, which is broken off. Apparently the head of a bird (136) is given on the base of one of slate. A rough conglomerate (138) flat on the sides appears to have been completed. There are two good representations of the human face, one (139) is of quartz and the other of clay slate. The latter (140) has markings on the lower lip and chin. The last two are of pottery. One (141) has five elongated cavities around the bowl, while the other has two rows of the same with three cavities in each.

The Johnson collection, from Kelley's Island, in the matter of pipes, as well as in some other things, presents quite a contrast with the Worden-Warner cabinet. Allowing both to be the remains of Indian villages, when the geographical nearness of the two are considered, the greater is the contrast. The Johnson collection has nine specimens and one fragment. Of those made of stone none are complete save one. Of the two large ones of a dark grained slate, one (Plate XXI, 143) barely has the perforations started, while the other (144) has the bowl one-third completed, but the perforation for the stem has not been started. Of the two of sandstone, one (145) has the cavities partly drilled, and the other (146) is in a rough condition with the cavities started. Of the three pottery, one (147) is plain, another (148) has circles at the bowl, and the remaining

PLATE XX.



PLATE XXI.



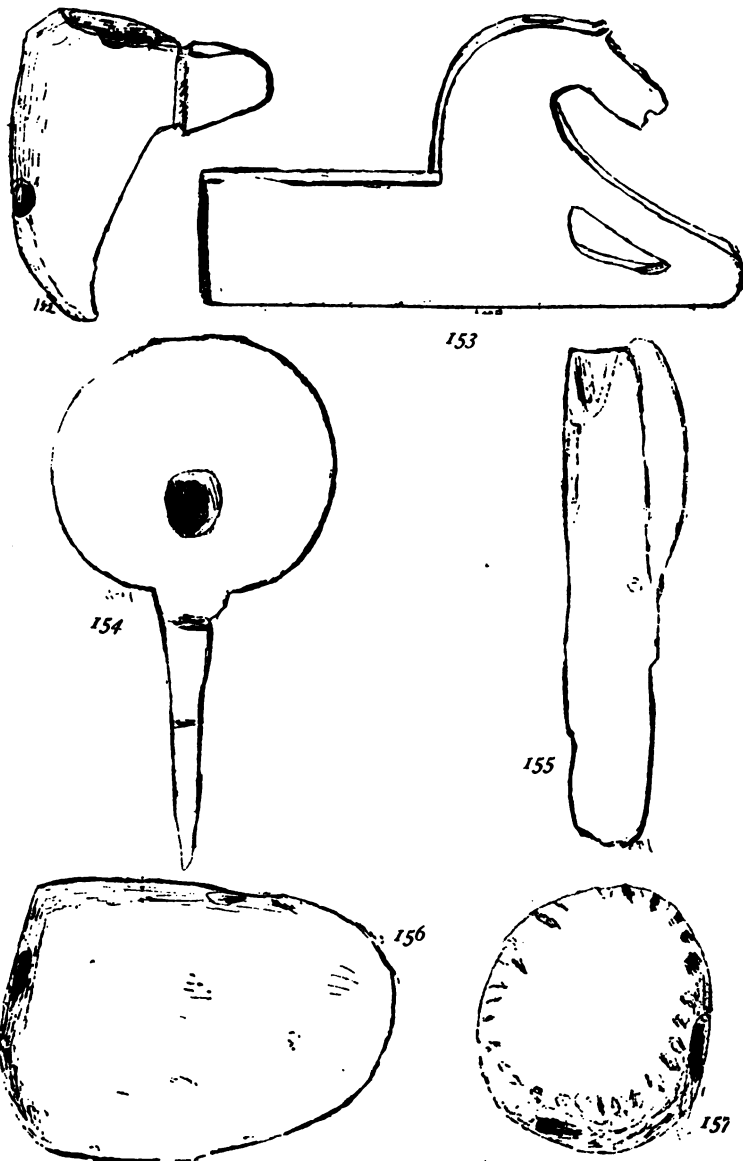
one (149) not only has the grooves, but also cross-lines. The last two are made of quartz, one of which (151) is finished, and the other (150) has its cavities started. Near the bowl (a) is a cavity.

There are nine pipes among the miscellaneous collections, two of which are the large plain Chippewa kind, made from catlinite. A pipe of sandstone (Plate XXII, 152), with a curious knob on the face of the bowl, was found near the mouth of Rocky River (Ohio), and given by Dr. J. P. Kirtland. There is a Sioux pipe (153) representing the head of a horse. None of the edges are rounded off. A very interesting pipe (154), made of catlinite, donated by Dr. Kirtland, was ploughed up in western Missouri. The face of the bowl is a broad, flat circular surface, with the cavity in the center, and the stem extending, in a depressed line, from the circumference. The stem for the insertion of the pipe is under the broad surface. A side view (155) shows the end of the stem notched, and a perforation just under the edge of the circle. An incomplete pipe (156) of limestone, is given from Kelley's Island. Another (157) to be spoken of is a dark sandstone, circular in form, flat sides and broad edge, or circumference. The edge is notched on both sides, and on the surface of the edge are two grooves, connected by a series of lines in groups.

Of all the pipes none are so rare as the mastodontic. Even collectors recognize the futility of searching for them. It is known that they must be discovered by accident. When a collector does secure such a prize his feelings may be imagined, but not adequately described. These pipes are characterized for their large size, compactness and the image of some animal.

The Society has not been so fortunate in securing this class as some others have been; but still other institutions have been

PLATE XXII.

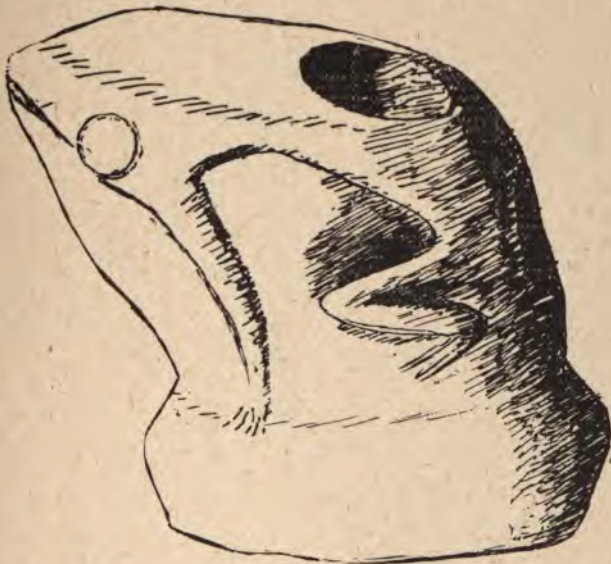


even less fortunate. For general purposes of illustration the cast of a man pipe, the original from Miami County, Ohio, may serve for a description. The man rests on his elbows and knees, with the soles of his feet barely coming together at the farther extremity. The face is marked with lines and the general aspect is that of pain. The bowl is in the middle of the back, and the perforation for the stem is between the knees.

The frog-pipe (Plate XVIII, 122), found near Warsaw, Ohio, in 1851, composed of sandstone, has been badly chipped since it was found, having been in a perfect state. The rimming out of the perforation for the stem has left rings. Owing to its present condition it cannot be taken as a typical specimen.

There are two other pipes which must take their place as be-

*Fig 11*





ing among the foremost of the mastodontic class. There are others larger, but not so perfect in their workmanship, and so decided in their expression. The one shall be called the frog and the other the man pipe, both having been found in Ohio.

The frog-pipe (Fig. 11) was found north of Mt. Gilead, Ohio, in 1853. It is made out of a fine grained compact sandstone, and is just as perfect as it was when it left the hands of the sculptor. It weighs two pounds and eleven ounces; greatest length, five and one-half inches; height, four and one-half, and three in breadth. The workman was skilled in his art, understand-

*Fig. 12*



ing the law of proportion as well as how to bring out all the characteristic features of the amphibian. The spread of the toes, the relative distances of the eyes, are all sharply defined. Much care was placed on the base, even to the beveled edges. The bowl is large, as also is that of the perforation for the stem, the latter showing that a large tube was used for drawing the smoke. For accuracy of drawing, complete preservation, and size, this pipe may be said to be unexcelled.

The man-pipe is certainly unique. The sculptor took a new departure and exhibited himself as a genius. In the mastodontic pipes the effigy forms an integral part of the pipe itself. In this specimen (Fig. 12) the figure is separate and distinct from the pipe. The man is sitting on his haunches, with his hands clasping his knees, all of which is strongly produced. The head is thrown back, with deep carvings over the face, so often met with in pipes of this description. The eyes are rather prominent and the image is that of sadness. Around the neck is a necklace, and over the breast four spearheads, representing those of copper with stems, which have occasionally been found in the mounds. The arm is clasped by a band. It is composed of a hard, fine grained sandstone, differing slightly from that out of which the frog was made. It weighs three pounds and two ounces; greatest length, five inches; height, same; breadth, three.

The fifteen pipes made of plaster, representing as many rare specimens, will not here be considered, although they greatly assist in the study of this class of remains.

SCULPTURES.—This branch of the question has been indirectly treated in the comments offered on pipes, where the artist's skill was fully displayed. What is now offered must consequently be brief. The Museum does not possess a col-

lection of images that can be compared to the older and more pretentious establishments whose facilities have been greater; yet there are few that boast of sculptures equalling the two images of animal heads (Plate XXIII). Both are made out of a coarse grained sandstone, and bear all appearance to long exposure to the weather. The only history I have been able to secure is that they were taken in 1876 from a depth of two hundred and five feet below the surface at Caledonia, Illinois. One of them (158) is a rude attempt at representing the head of a sheep. The extreme length of the head is six inches, and height of the image four and one-half, while the greatest thickness is two and one-half. The other (159) may be the head of a doe. The length of the head is eight inches, and height of the stone the same. This sculpture exhibits better workmanship than the other. The Hatch collection contains a masklike face (160), carved in sandstone, ploughed up in a field in Jackson Township, Coshocton County, Ohio, in 1851. The projections rising from either side of the head appear to have been made for the purpose of being suspended by strings. The same plate shows a fragment of a pictograph (161), on sandstone, found in Lorain County, Ohio.

#### MICA.

The Mound Builders to some extent engaged in mica mining. Their old trenches have been found in North Carolina, and some of their mica laid away for future use. Mica has been found in the mounds. Of the six sheets in the Museum, one donated by Colonel Whittlesey, taken from a mound near Portsmouth, Ohio, is nine inches in length by seven in breadth. It is in as good condition as it was when taken from its original bed. Another sheet, six by six inches, was found in a mound, in Orange Township, Cuyahoga County, Ohio, January, 1878. It was

PLATE XXIII.

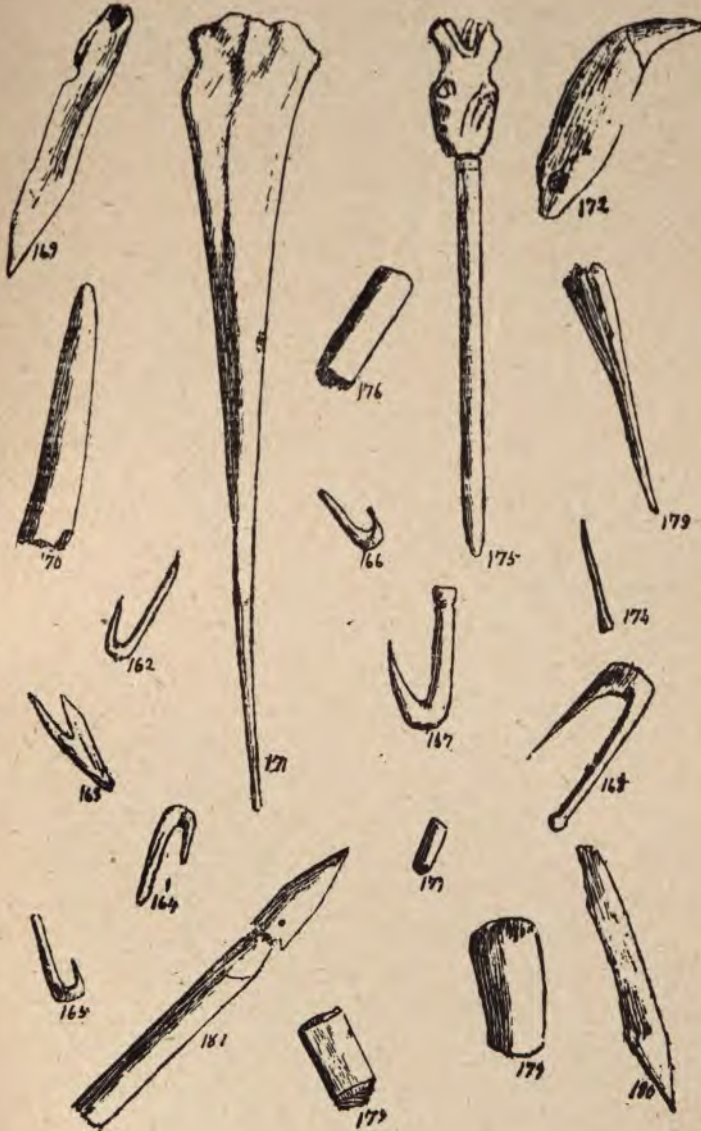


three feet below the original surface of the ground, and upon it rested a human skull.

### BONE IMPLEMENTS.

The Museum may be said to be strong in its collection of bone implements. Since the heading of this paragraph was written, Hon. D. C. Baldwin has added to his previous donation 51 bone implements, 69 shell ornaments, 210 colored glass beads, three cornered, 7 copper ornaments, 4 strings of beads or wampum, 12 arrow heads, 1 axe and 1 hatchet, from Brindleton, North Carolina, Stanley Mound, Cross County, Arkansas, Bolton, Lake George and Cayuga County, New York, Sheffield, Ohio, Santa Barbara, California, Columbia River, Oregon, Madison County, New York, and Mexico. These specimens make a very fine collection in themselves. The accompanying plate (XXIV) illustrates some of the classes of bone implements, all of which, save one, are from the D. C. Baldwin collection. Fishing hooks (162-168) bear the same relative pattern. Three of these (162-164) are quite delicate and finely finished. All are from Sheffield, Ohio. Different kinds of perforators or bodkins (169-171, 173, 174, 180, 181), used for piercing in the sewing of garments are also interesting features. It is more than probable that one (171) was used in adjusting the hair. Another (181) has the appearance of having been a fish spear. It, however, is modern, having come from western Siberia. Bone (176-178), when perforated, was also used as beads or wampum. The canine tooth of the bear was sometimes perforated, and then placed upon a string and used suspended around the neck. The specimen in the illustration (172) is from the Worden-Warner collection. In comparison with these is another relic (175) from ancient Rome. It was probably used as a hairpin.

PLATE XXIV.



It is made of ivory. It is accompanied by five other finely wrought specimens from the same locality.

A notice should also be made of the ornaments of shells, which are also many, but mostly of those belonging to fresh water. There is a very large *Bysicon perversum*, probably used for dipping water, found in conjunction with the skull taken from the mound at Marshall's Ferry, Illinois, on the Wabash river.

#### POTTERY OR CLAY VESSELS.

The collection of pottery, composed principally of a mixture of clay and the crushed shell of the unio, is large and varied. The perfect or nearly perfect vessels—exclusive of recent Pueblo pottery—varying in size from a half pint to four gallons, are eighty-seven in number. Properly treated the collection would make a fair sized monograph.

In the appended plate (XXV), all but two are from the C. C. Baldwin collection. The first (182), to which is attached a stopper (183) is a plain vessel, three and a half inches in height, from White County, Indiana. And the next (184), from Posey County, without ornament, ten inches in height, is a double vessel connected by two hollow arms. From the same county is still another (186), rudely ornamented, four inches in height. A small vessel (185), duck-shaped, five inches in extreme length, is also from Posey County. In contrast with these are two others (187, 188), belonging to the Baldwin-Baldwin collection, from the Cliff-Dwellings. The first is a pitcher, three inches in height, ornamented in black and white, with one handle, and the other, five and a half inches in height, has double handles. It is ornamented on the upper part of the bowl, but plain on the neck.

PLATE XXV.





### CONCLUSION.

What has thus imperfectly been set forth will give a fair conception of the value of the collection of archaeological remains possessed by the Western Reserve Historical Society. The building of the Society is open free to the public every week day, and special facilities are afforded those who may be interested in American antiquities.

THE UNIVERSITY OF CHICAGO

1968



E  
98  
AGM3

Stanford University Libraries



3 6105 001 755 821

CECIL H. GREEN LIBRARY  
STANFORD UNIVERSITY LIBRARIES  
STANFORD, CALIFORNIA 94305-6004  
(650) 723-1493  
grncirc@sulmail.stanford.edu  
All books are subject to recall.

DATE DUE

JUN 5 1999  
JUN 5 1999

