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Our Aim—To Study—Preserve—Record—Wisconsin Antiquities.

Vol. 3.

OCTOBER, 1903.

No. 1.

THE
WISCONSIN
ARCHEOLOGIST

PUBLISHED BY THE
WISCONSIN ARCHEOLOGICAL
SOCIETY.

SUMMARY
OF THE
ARCHEOLOGY
OF
RACINE COUNTY
WISCONSIN.

WISCONSIN ARCHEOLOGICAL SOCIETY.

MILWAUKEE, WIS.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities.



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Meetings.

These are held in the Lecture Room in the Museum-Library Building, in Milwaukee, on the first Friday of each month, at 8 P. M.

During the months of July and August no meetings will be held.

The Executive Board meets on the second Monday in each month.



MEMBERSHIP FEES.

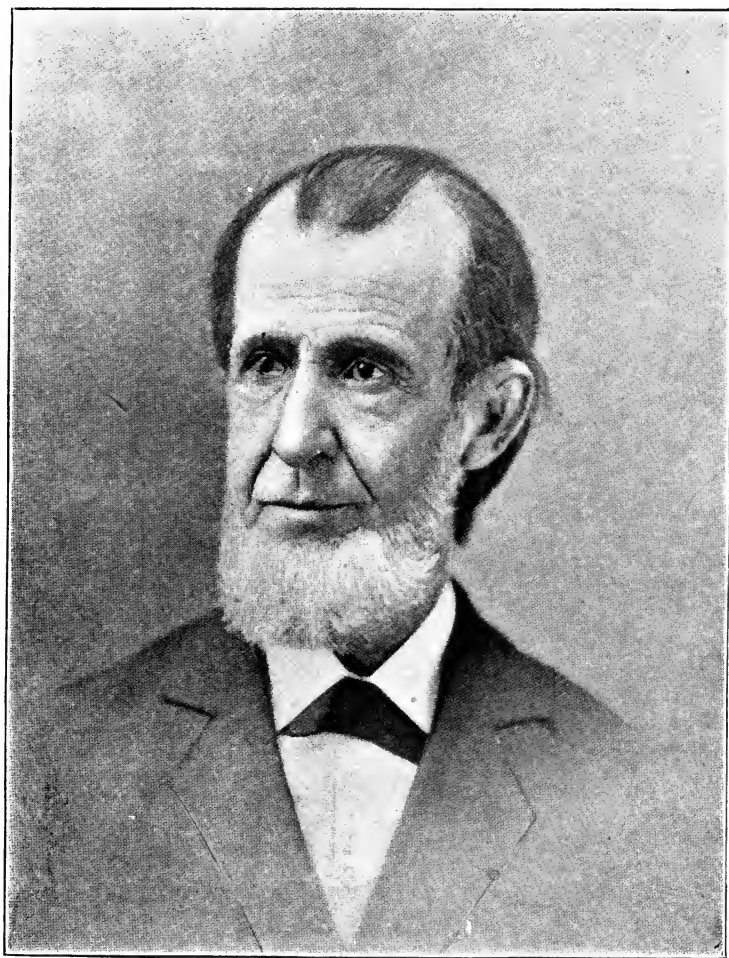
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All communications in regard to the Archeological Society or to the "Wisconsin Archeologist" should be addressed to Chas. E. Brown, Editor, care of the Milwaukee Public Museum,

OCT 2 1913

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DR. PHILO R. HOY.
of Racine
PIONEER ARCHEOLOGIST.

THE WISCONSIN ARCHEOLOGIST

A QUARTERLY BULLETIN PUBLISHED BY THE WISCONSIN ARCHEOLOGICAL SOCIETY.

Vol. 3.

MILWAUKEE, WIS., OCTOBER, 1903.

No. 1.

Proceedings of the Wisconsin Archeological Society, September 11, to October 9, 1903.

MILWAUKEE, SEPTEMBER 11, 1903.

XLVII Monthly Session. Thirty members in attendance. President Crosby occupied the chair. It greatly pleased him, he said, to be able to report that at a joint meeting of the Executive Board and the State Board of Agriculture, held at West Allis, Wis., on August 6, the members of the State Board had agreed to take measures necessary for the protection and preservation of the Indian mounds located in the State Fair Park. Mr. O. L. Hollister, who had assisted him in presenting this matter to the State Board, had very kindly taken it upon himself to see that these mounds were appropriately placarded.

Mr. W. H. Elkey made a brief report on the location and condition of several mound groups visited by himself on the shores of Buffalo Lake, in Marquette County.

Vice-President Porter contributed a short but interesting paper detailing the results of the recent exploration by others of two burial mounds located on the banks of the Fox river, near Big Bend, in Waukesha County.

H. A. Crosby told of the results of the survey conducted by himself and Vice-President Lawson in Eastern Calumet County. He stated that at least another season's field work would be necessary to complete the surveys in that territory.

Secretary Brown then presented a lengthy report entitled "Investigations in the Wisconsin Field during the Summer of 1903." The Society, he said, might well be congratulated upon the results of the season's work. In nearly every instance where researches had been undertaken by competent individuals, the work had been carefully and intelligently pursued and the results, (as briefly mentioned in the Secretary's report), well demonstrated what could be accomplished by an archeological society well organized and working with a definite purpose in view, in a comparatively short period of time. In some counties the work had progressed far better than in others. There were of course various reasons for this. Some disappointments had been met with, especially in instances where members, whose assistance had been relied upon, had failed to keep promises made earlier in the season. In several districts the work of survey and exploration had been practically completed and the results were being prepared for publication. All of the expenses of these researches had been borne by the individual members participating. It was to be hoped that ere long some local philanthropist might be induced to come forward with sufficient funds to warrant the establishment of a permanent survey. The Messrs. J. J. Gilman, A. H. Porter, P. A. Seifert, Dr. L. Falge and Chas. Stever were to be particularly commended for the character of their services to the Society.

It was also stated that a considerable number of applications for membership had been received from all parts of the state,

At the session's close the following exhibits were made:

W. H. Elkey, a large copper pike, axe and spud, and a number of fine stone implements recently added to his collection.

F. Mueller, a fine socketted copper spear.

W. H. Ellsworth, a remarkably large and fine stone spud.

MILWAUKEE, OCTOBER 9, 1903.

XLVIII Monthly Session. This meeting was held in the Librarian's office in the Milwaukee Public Library, Vice-President William H. Ellsworth presiding. There were twenty-two members in attendance. Secretary Brown announced the election of the following patrons: Mr. Thomas E. Camp, Mr. Wyman Kneeland Flint and Mr. Howard Greene, of Milwaukee, and of the following regular members: Hon. J. M. Pereles and Mr. T. J. Pereles, of Milwaukee, Sister Alphonsa, of St. Catherine's Academy, Racine, Mr. W. E. Morton, of Omro, and Mr. Ernest W. Johnson, of Lodi..

He also stated that the Board of Directors, at its regular monthly meeting on September 13, had taken the steps necessary to urge upon the Delevan Lake Assembly the need of securing the preservation of a mound or mounds located upon the Assembly grounds at Delevan Lake, in Walworth County.

To Mr. W. P. Clarke, of Milton, the Society was indebted for calling its attention to the impending destruction of these earthworks.

During the past month two field expeditions had been dispatched to the neighborhood of Brookfield and Little Muskego Lake, in Waukesha County, for the purpose of making surveys and collecting archeological data. Both of these surveys had been very successful. At the request of the Society, Mr. John Gerend, of Sheboygan, had visited Washington County and reported upon the location of mound groups in the vicinity of Kewaskum, Barton and West Bend. To Prof. A. R. Clifton, of Pewaukee, had been entrusted the task of collecting archeological data in the township of Pewaukee, in Waukesha County. From Mr. Frank Mueller, of Princeton, had been received carefully prepared plats and a report of two groups of tumuli located on the banks of the Fox river in Green Lake County, and from Mr. P. A. Seifert, of Richland City, a survey of two groups of tumuli located near Bear Creek, in the township of Buena Vista, in Richland County. These plats were exhibited to the members present. It was strongly advised by several members that in order to secure greater activity and better results in the several lines of work now being pursued by the Society, a revision of the present standing committees should be made. This matter was discussed and referred to the Executive Board for consideration.

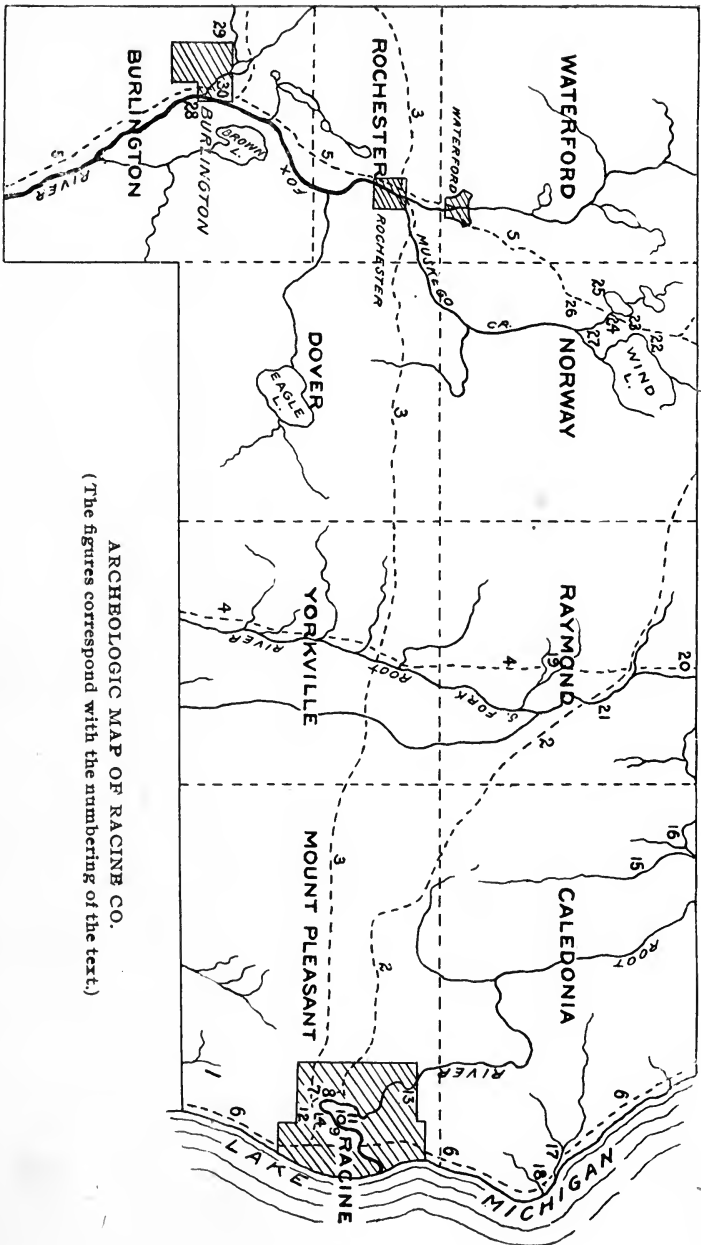
The regular program consisted of a talk by Mr. Chas. E. Brown on "Wisconsin Types of Ground or Pecked Stone Implements." This talk, which was of an instructive character, was afterwards discussed by the Messrs. Dr. Joseph Quinn, W. H. Ellsworth, H. A. Crosby, Dr. Louis Lotz and others present.

At the close of the session the following exhibits were made:

Dr. Louis Lotz, a stone muller.

W. H. Vogel, a choice collection of European and other stone implements.

H. P. Hamilton, tracings of a number of fine copper implements recently acquired by himself.



ARCHAEOLOGIC MAP OF RACINE CO.

(The figures correspond with the numbering of the text.)

Summary of the Archeology of Racine County, Wisconsin.

BY GEO. A. WEST.

INTRODUCTION.

Racine County is bounded on the north by Milwaukee County, on the east by Lake Michigan, on the south by Kenosha County, and on the west by Walworth County; contains nine townships and about 340 square miles.

The Root river, called by the Indians "Chippecotton," meaning root, winds about the eastern half, and the Fox or "Pish-taka" river traverses the entire western part of the county.

The Des Plaines river rises in the township of Raymond and flows south through Kenosha County into Illinois.

Within the borders of Racine County are several beautiful lakes; the country is high, rolling, rich tillable land, once covered by hardwood openings and prairies, now thickly populated and utilized for agricultural purposes.

The western tier of townships of Racine County are traversed by the "Kettle Range," or glacial moraine, that runs from Green Bay, southwesterly into the State of Illinois.

This range of gravel hills is supposed to have been the lateral moraine, left by the great glacier that years ago plowed out the trough that now contains Lake Michigan. The same glacier is also credited with having excavated the several beautiful lake beds of Racine County; the same agency furnished homes for abundant water fowl, in the form of low marshes and shallow lakes. The township of Norway shows these results more than any other Racine County township, for fully one-half of the area included consists of marsh land and lake. The gradual melting of this great field of moving ice created glacial streams, which excavated the river and creek beds, all of which is largely responsible for the present beauty of the physiographical features of the county.

This great glacier also carried with it in its course fragments of granite, sandstone and other varieties of rock and ground them into boulders and pebbles convenient for the use of the aboriginal inhabitants in the making of their axes, celts and other implements.

No quarries of flint or chert, the material from which most of the arrow and spearheads were made, have been discovered in Racine County. Consequently the Indian must have depended on

barter and trade or journeyed to a distance for the bulk of such material.

In the Wisconsin Geological Reports, the theory is advanced that the volume of Lake Michigan was at one time very much less than at present. This may account for the well-established fact that off the shore at Racine there exist indications of a submerged hardwood forest. Capt. David I. Davis, an old lake captain, of Raymond, now deceased, often related to the author his experience in hauling up portions of trees with his anchor, and of his having lost two anchors by their catching among submerged timber. The author was told, many years ago, by a Racine fisherman, that he often got his nets caught in these sunken trees.

About the year 1880, a farmer, while digging a well on the lake shore, about four miles south of Racine, found in the clay drift, several casts of the trunks of trees. Some of them measured fifteen inches in diameter.

On the bank of Pike Creek, near the Kenosha County line, township of Mt. Pleasant, are several calcareous springs. The author, in 1876, discovered a similar spring near Wind Lake marsh, in the township of Norway.

If we may judge by early indications Racine County must have been in the past a veritable paradise for the hunter. Before the prairie lands were broken by the plow, buffalo wallows were to be seen on every hand; elk antlers are frequently found in spring holes and marshes. Fish, wild fowl and small game was everywhere abundant. The remains of beaver dams are still quite common. Near Eagle Lake, township of Dover, were found the bones of a mastodon, and teeth of the mammoth have been found in the township of Raymond.

PROGRESS OF THE SURVEY.

It is hoped that this modest contribution to Wisconsin Archeology may prove of value, not only as a record, but as a field directory for the student and investigator. With this purpose in view every effort has been made to make this summary as complete as possible.

The author, having resided in Racine County for twenty-eight years, and having been for many years an active member of the Wisconsin Academy of Sciences, accompanying the late Dr. P. R. Hoy in much of his later field work and archeological research throughout the county, is personally familiar with most

of the evidences of pre-Columbian and early aboriginal occupation listed and described herein.

And although all of the known possible sources of assistance and reliable information have been invoked and exhausted, there is yet the possibility that some archeological data of minor importance may have been omitted from the present record.

He therefore desires that any person having in his possession information relating to the mounds, trails, village sites, or of especially noteworthy implements or ornaments found in Racine County, will acquaint him with the fact, in order that the same may be preserved in permanent and readily accessible form by future publication. When a sufficient amount of additional data has been thus assembled this bulletin will be supplemented by a further report.

He has applied appropriate locally known names to all of the groups of mounds, Indian trails, village sites and garden beds included; under the name of each town the objects of interest in that town are described, each group, trail and village site is numbered to correspond with the numbers shown on the accompanying map.

It had been his original intention to include in this publication a summary of the antiquities of Kenosha County, for which a considerable amount of valuable data has already been assembled by himself and others, but owing to the fact that he has been unable to find the time to complete certain necessary surveys in that territory or to secure the necessary co-operation of certain persons residing there, this plan has had to be abandoned until some future time.

He especially desires to acknowledge the kind and valuable assistance which he has received from Mr. O. L. Hollister and Mr. Charles E. Brown, of Milwaukee, and the Misses Mary J. and Julia A. Lapham, of Oconomowoc; Mrs. Origin Perkins, Mr. F. H. Nims and Mr. Louis H. Rohr, of Burlington; Mrs. Jenny Hoy Miller, Mr. W. H. Crosby and Mr. A. F. Botsford, of Racine; Mr. John Worteshek, of Tabor; Mr. John L. Larson and Mrs. Hans A. Jacobson, of Norway; Rev. Stephen D. Peet, editor of *American Antiquarian*, and Dr. Frederick Starr, of Chicago University; and to express his indebtedness to the *Racine Journal* and other Racine, Kenosha and Milwaukee County papers for calling the attention of the public to the preparation by himself of the present summary.

To Mr. Ode D. Brown, a local artist, he is indebted for as-

sistance in the preparation of several of the accompanying illustrations. Some of these will be recognized as reproductions of earlier illustrations given by Dr. Lapham in his "Antiquities of Wisconsin."

PRESERVATION OF THE MOUNDS.

Racine County remains, in common with those of other sections of the state, have in numerous instances suffered irreparable damage and destruction at the hands of the relentless "mound digger" and "relic hunter." Aside from what has been accomplished by the late Dr. Philo R. Hoy but little in the line of systematic research has been undertaken, nor has any attempt been made to stay the work of destruction. Let us hope, therefore, that while there is yet time the intelligent citizens of the county may become aroused to an interest in the educational value of these prehistoric heirlooms and that through their united efforts one or more of the remaining groups of mounds may be preserved for all time.

The opening of mounds should be discouraged, unless conducted by archeologists, proceeding in a careful and scientific manner.

From the moment a mound is opened, it is doomed to destruction, all interest in its preservation is lost, and the owner of the land usually hastily completes its obliteration. Effigy mounds should never be disturbed, as they seldom contain anything of interest. They should, when possible, be preserved, as they have made Wisconsin famous from an archeological standpoint.

In this connection let us bear in mind what has been said by Dr. Cyrus Thomas, the eminent American archeologist (12th Ann. Rep't. Bu. of Ethno., p. 31):

"Effigy mounds are almost limited to the Wisconsin district, the only known exceptions being two or three in Ohio and two in Georgia."

Not one in fifty of the conical or oblong mounds contain any ornaments or implements.

HISTORICAL.

C. W. Butterfield states that La Salle and Father Louis Hennepin coasted along the western shore of Lake Michigan, frequently landing, and believes that a landing was made at Racine about the year 1679. (Hist. of Racine and Kenosha Counties, West. Hist. Co.)

1. "Benjamin Bones, living four miles from Racine, cut down in 1870 a large white elm and on splitting it discovered, four inches from the center, a blaze which included a hack evidently made by a sharp ax. He brought me a section of the tree including the blaze. There were one hundred eighty-eight rings outside the hack, measuring twenty-two and a half inches from inside of bark to blaze. Counting back and adding two years for the growths to cover the scar, we found that the period corresponded with Hennepin's first voyage along the west coast of Lake Michigan. A few years before this discovery, Dr. Lapham and I amused ourselves tracing Father Hennepin's voyage. We located the spot five miles south of Racine where he halted and spent several days to recuperate. He says: 'At this station the natives and voigeures we had with us killed plenty of stags, wild goats, and many turkeys, big and fat.' The point where we located this halt is not over one-half mile from this famous historic tree, which was fully four feet in diameter. It is probable that 203 years ago some of Hennepin's party blazed an elm sapling as a guide, and now the marks of that hatchet are revealed as sharp and distinct as when first made." (Dr. P. R. Hoy in *Who Built the Mounds*, p. 15.)

Francis Morgan de Vincennes, an officer bearing the arms of the royal master of this newly acquired domain, attended by a small band of his followers, enroute to the Miamis, paused to rest here in 1669.

Joliet and Marquette may have landed here in 1674.

A half-breed Frenchman, named Jaques Jambeau, about the year 1832, established a trading house at what is called Skunk Grove, in the northwestern portion of Mount Pleasant township, where he conducted a thrifty business with the Indians.

Previous to 1832 little was known of this portion of the country.

In 1833, by treaty concluded at Fort Dearborn, all Indians were to vacate this territory by 1836.

The first actual settler of the county was Gilbert Knapp, who located at Racine in 1834.

The Indian history of this section is not of a sufficiently absorbing character to make it worthy of special recital here. The bluffs along the river and lake, like those of many another locality, were once the home of savage tribes; but this region appears not to have been selected as the abiding place of chieftains noted in the Indian history of the west.

The Sacs and Foxes held undisturbed possession of the southeastern quarter of the state of Wisconsin, as now defined, until the period of time marked by the Black Hawk War.

Mr. Smith, one of the early settlers of Caledonia, says that prairie wolves and Pottawatomie Indians were equally abundant. That during the winter there were three encampments of Indians uncomfortably near his house.

The Raymond settlement was not far distant from Jambau's trading post, and it is said that the Indians with their theiving propensities and meddlesome dispositions annoyed the settlers.

DR. PHILO ROMAYNE HOY.

Dr. Hoy began the practice of medicine at Racine, Wisconsin, about the year 1846. He was not only one of Wisconsin's most noted pioneer archeologists, but also a naturalist of a wide reputation. A record of his early work is of great value to students of Wisconsin archeology, as many of the mounds investigated by him have entirely disappeared and are now known only from his descriptions.

Miss Julia A. Lapham (p. 87, Vol. 1, No. 4, The Wisconsin Archeologist) states that: "Among Dr. Hoy's publications are four of special interest to the archeologist:

1. How did the Aborigines of this Country Fabricate Copper Implements? Trans. Wis. Acad. Science, Vol. 4, pp. 132, 137; 1876-77.

2. Who Built the Mounds? Id. Vol. 5-6, pp. 84-100; 1881-83.

3. Who Made the Ancient Copper Implements? Id. pp. 101-106.

4. How and by Whom were the Copper Implements Made? Who Built the Mounds? Phlt. Pub. Racine, 1886, 30 pages.

His publications have carried a knowledge of the archeology and natural history of Wisconsin to all parts of the civilized world."

Dr. Lapham (p. 8 Antiq. of Wis.) acknowledges that in the examination of the Racine groups of mounds and preparation of his map, he had been materially assisted by Dr. Hoy. Dr. Hoy, during his lifetime, made a very complete collection of Wisconsin birds, a valuable collection of Wisconsin fossils, and a fine representative local archeological collection, which collections, it is reported and gives me pleasure to state, will be de-

posited in the Racine Library building when it is completed and ready to receive them.

Dr. Hoy was to the author a dear friend and an instructive companion. His enthusiastic interest in the antiquities of our state never ceased until the day of his death.

FREDERICK S. PERKINS.

Racine County was the home of a most remarkable man in the person of the late Mr. Frederick S. Perkins, of Burlington, Wis., in his day perhaps the most noted collector of archeological material in the northwest. A fine collection was disposed of by him to the U. S. National Museum, one to the state of Wisconsin, now in the halls of the State Historical Society at Madison, and a third collection to the Milwaukee Public Museum. A fourth collection remained after his death in 1899 and is now the property of the M. B. Erskine estate and in possession of Mr. W. H. Crosby, of Racine, Wis. Of this last Perkins collection of American relics, President C. K. Adams, of the University of Wisconsin at Madison, is quoted as saying: "I suppose, without doubt, this collection is the finest of its kind in the world. It is doubted whether it can under any circumstances ever be equaled."

"Mr. Perkins was an acknowledged authority upon the rare and interesting copper implements of Wisconsin and adjacent states. Probably more specimens of these were in his possession at different times than are to be found in any public museum or private collection in the world. Every specimen of this sort that he ever owned is represented in an album."

"Mr. Perkins was a trained artist of high talent; he spent a fortune in money and a quarter of a century in time forming his archeological collection of nearly fifty thousand specimens. He devoted thirteen years of constant and conscientious work to painting, in aquarelle, representations of more than twelve hundred of the choicest specimens in this great series. These superb paintings exactly reproduce the objects themselves in size, form, markings and delicate variations in color."

Dr. Geo. W. Peckham, of the Milwaukee Public Library, says: "The Perkins album is a most important contribution to science. It is a magnificent work and full of interest for all people of intelligence." (Bull. Wis. Nat. Hist. Soc., Vol. 1, No. 1, p. 57.)

This valuable work has not yet been published.

The Summary.

TRAILS.

An interesting theory respecting the origin of the routes now pursued by many of our public highways was given in a speech of Thomas Benton many years ago. He said the buffaloes were the first road engineers, and the paths trodden by them were, as a matter of convenience, followed by the Indians, and lastly by the whites.

RACINE-WAUKESHA TRAIL.

2. An Indian trail at one time ran from Racine to Skunk Grove in the township of Mount Pleasant, through what is now known as Thompsonville, from thence in a northwesterly direction across the township of Raymond, crossing Root river at what is known as Clague's Bridge, continuing in a northwesterly direction through the town of Norway, and passing Muskego Lake on the way to Waukesha.

RACINE-FOX RIVER TRAIL.

3. A second trail had its origin at Racine, crossing the Fox river near where the village of Rochester is now situated, and following along almost the same line that the old Racine and Janesville plank road afterwards pursued.

CHICAGO-MILWAUKEE TRAIL.

4. A third trail followed up the west bank of the Des Plaines river and the west bank of the south fork of Root river, passing through the towns of Pleasant Prairie, Bristol and Paris, of Kenosha County, and the towns of Yorkville and Raymond, of Racine County, and thence continuing to Milwaukee. This was the old Chicago and Milwaukee trail and is yet quite distinct in many places, especially across the farm of Mr. Geo. West, in Section 22, town of Raymond. Robert McPherson, an old resident of Raymond, remembers well when this trail was used by Indians and whites alike.

FOX RIVER-MILWAUKEE TRAIL.

5. A fourth trail followed the Fox river through the towns of Burlington, Rochester and Waterford, leading to Big Bend in Waukesha County. A branch left this trail near the village of

Rochester and passed over Indian Hill and along the west shore of Wind Lake, crossing the Waukesha trail between Little and Big Muskego Lakes, then continuing in the direction of Milwaukee.

LAKE SHORE TRAIL.

6. Another trail followed the west bank of Lake Michigan, probably tapping the villages that at one time existed, a few miles apart, along the beach from Chicago to Green Bay.

The above are the principal trails that traversed Racine County. Each trail had many branches or laterals leading to some favorite hunting or fishing ground.

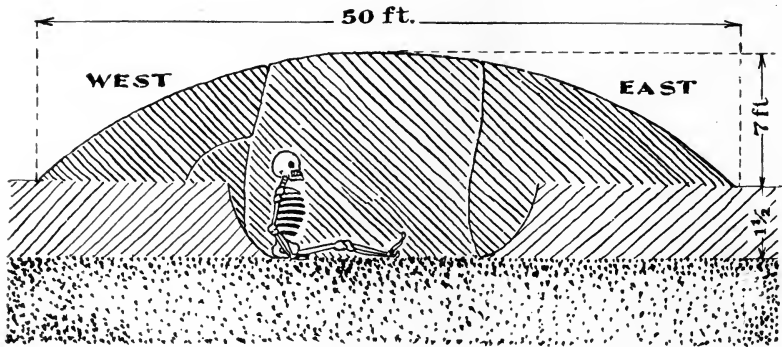
These trails are still distinct in many places, across fields not yet put under cultivation.

City of Racine and Town of Mount Pleasant.

Dr. I. A. Lapham in his "Antiquities of Wisconsin" (page 6) describes groups of works which occupy an area of high ground bordering upon Root river, and from one to two miles west of the margin of the lake and immediately back of the city limits. "They consist mostly of circular burial mounds, of no great size or height, with one circular enclosure and several tapering ridges. There are also two semi-circles opening on the edge of the bluff towards the river. The group of very numerous and remarkable mounds represented at the lower part of the plat was surveyed with some minuteness, with a view to detecting the order of arrangement upon which they were constructed. The result shows very clearly that no order or system was adopted. Each person buried was placed where chance might lead the relatives or friends to select the spot. No three mounds could be found on the same straight line, indeed, it seems as if it were the intention of the builders to avoid all appearance of regularity. Large mounds are interposed with smaller ones, without regard to symmetry or succession."

Dr. Hoy opened one of these mounds and found in it the skeletons of several persons buried in a sitting posture and facing east. "The bones were not accompanied by ornaments or articles of any kind that had resisted the destructive effects of time. The teeth of the adult skeletons were much worn, but sound and firm. It was observed that the muscles of the jaws must have been unusually large and strong. The bones of the skull, except in

one instance (probably that of a female) were found to be remarkably thick and solid. These skeletons were much decayed and could not be restored. The mound opened was seven feet high and fifty feet in diameter, being the largest of the group.



SECTION OF A RACINE MOUND
Excavated 1875 by Dr. P. R. Hoy.

A basin shaped excavation had been made in the original soil, about eighteen inches deep, reaching to the gravelly subsoil, upon which the skeletons were placed side by side, all facing in the same direction. The legs which had been placed horizontally, retained their original positions, but the skulls and the bones of the bodies were huddled together by the settling of the earth in which they were placed. There were no indications of fire."

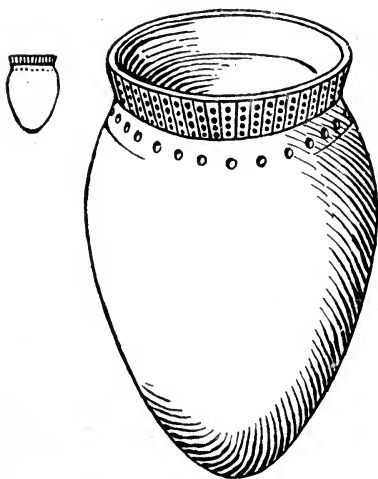
Another mound of similar dimensions, opened under Dr. Lapham's supervision contained a confused mass of bones, all very much decayed and resting upon the gravel which was here two feet below the original surface. "Bones of at least three individuals were discovered. Their confused condition might be owing to the custom, still prevalent among Indians, of placing the bodies of those who die or are killed away from home, in trees, where they remain until the softer parts are decayed and gone, when the bones are collected and buried. No ornaments, or, indeed, articles of any kind, could be found in this mound; nor was there any charcoal, burnt clay, or other indication of fire."

"These mounds were made from the surface soil, and no traces of excavations, or places whence the materials were taken,

could be detected. It is not probable that the earth was penetrated more than a few inches to obtain the quantity necessary to form the mounds, some of which are quite small, nor more than one or two feet in height above the original surface of the ground. They are all of various dimensions, and from five to fifty feet in diameter, and from one to seven feet in height. Many of them are now nearly leveled by the plow. They may still, however, be detected in the cultivated fields by a trifling elevation or by a slight difference in the color of the soil." (1850)

The plank road leading from the city to Rochester and Burlington on the Pishtaka river (or the Fox river of the Illinois) passes near this group of ancient mounds. Many of them are on the line of another road, and are leveled from time to time by the inhabitants in working out their road tax, without regard to the sacred deposits they contain. This spot was probably the common cemetery for the neighboring tribes, and not their place of residence. Its situation on the level ground back from the river and bluff, and at the head of a deep and narrow ravine, may be adduced as an evidence of this. The fact that seven bodies were buried in one mound apparently at the same time, and three more in another, seems to indicate that many died simultaneously by some calamity."

Dr. Hoy subsequently obtained two pottery vases from one of these mounds. "They were in a gravel pit two feet and a



HOY POT.

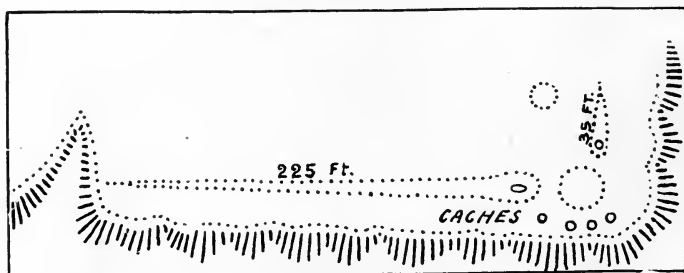
half below the original surface of the ground, in immediate contact with the fragments of two skeletons much decayed. One was made of cream colored clay and white sand, quite similar in composition to our pale bricks. It had a nearly uniform thickness of about one-fifth of an inch, and was originally quite smooth and hard; he so far restored it as to make it a good specimen. It would hold about five quarts, being seven inches in diameter at the mouth, and eleven and a half inches high. The other was of red brick color, about half as large, much thicker and coarser, and crumbled a good deal in handling. A considerable portion of gravel was used in connection with the clay in its fabrication." (Referred to in Rept. of Bureau of Ethnology, Vol. 12, p. 707. Also mentioned in Matteson's "History of Wisconsin," p. 53, in Tuttle's "History of Wisconsin," p. 56, and in Geo. and Stat. Hist. of Winnebago, 1856.)

MOUND CEMETERY GROUP.

7. Dr. Hoy, in 1850, gave the following account of the ancient works near Racine (Antiq. of Wis., p. 8): "The most numerous and extensive group is situated one mile west of the city. It embraces sepulchral mounds, all small, from one to eight feet high, unaccompanied by circles, effigies or other earth works. The city cemetery, just located, embraces a part of these mounds, which will be preserved, adding not only beauty but interest to the rural spot."

(Also quoted by Dr. J. F. Snyder in Smithsonian Rept., 1876, p. 433, and mentioned by Dr. Chas. Rau in Smithsonian Rept., 1868, p. 405, and by Chas. E. Dyer, Racine, 1871, p. 45. in a historical address delivered before the Racine Co. Old Settlers' Society.)

TEEGARDEN GROUP.



TEEGARDEN GROUP

8. "On the point of a high bluff is a mound six feet high, in connection with an embankment 235 feet long. This embankment is two feet high and twelve feet wide at the point nearest the mound, and tapers gradually to a mere point at its western extremity, near a spring. I am informed that there were formerly other works connected with this, which have been obliterated by cultivation and other improvements." (Quoted in *Preh. Am.*, Vol. 2, p. 135.)

ERSKINE MOUND.

9. "A little further east, on the same side of the river, is a single low mound, occupying the projecting point of a bluff." (Quoted in *Preh. Am.*, Vol. 2, p. 136.)

HOY GROUP.

10. Opposite this, on the north bank of the stream, there is a cluster of mounds crowded into a small space, bounded on the east by a long mound, and on the west by a "lizard mound" eighty feet long. (Quoted in *Preh. Am.*, Vol. 2, p. 135.)

BLUFF GROUP.

11. "The remaining works, situated on the bluff north of these last named, consist of three lizards, one oblong and six conical tumuli, and three enclosures. The two semi-circular embankments are situated on an almost inaccessible bluff eighty feet high. The embankments are slight, not over one foot in elevation, and ten or twelve feet broad, but perfectly distinct and well defined. There is some evidence that they formerly constituted graded ways leading to the river. They are tolerably well situated for works of defense, but, without the addition of palisades, could afford no protection. The small circle, from its size and position, could scarcely have been designed for a work of defence. Neither of these has any perceptible ditch on either side; if one formerly existed, it is now obliterated. The "lizards" are much alike, from two to two and a half feet high and from twelve to fourteen feet broad at the shoulders, the tail gradually tapering to a point. The longest is 130 feet, and the shortest 80 feet in length." (Quoted in *Preh. Am.*, Vol. 2, p. 136.)

SLAUSON GROUP.

12. "In addition there is a cluster of eight mounds situated on a sandy ridge, three-fourths of a mile further south."

"I opened one of the 'lizards' but found nothing. We excavated fourteen of the mounds, some with the greatest possible care; they are all sepulchral, of a uniform construction. Most of them contained more than one skeleton; in one instance we found no less than seven. We could detect no appearance of stratification, each mound having been built at one time, and not by successive additions. During these investigations, we obtained sufficient evidence to warrant me in forming the following conclusions: The bodies were regularly buried in a sitting or partly kneeling posture, facing the east, with the legs flexed under them. They were covered with a bark or log roofing over which the mound was built. The apparent confusion in which the skeletons are sometimes found is owing to their falling over at different angles, at the time, perhaps of the giving away and caving in of the temporary roofing. It is quite common to find skeletons before reaching the primitive receptacle pit. These were undoubtedly subsequent interments, made by the modern Indians. They are in a different state of preservation, and are mostly found in an extended posture. All the primitive crania were crushed and flattened by the weight of the superincumbent materials. In two instances, however, I succeeded, by great care and labor, in restoring these flattened fragments to their original shape."

"No implements or ornaments were observed in the mounds, excepting in three instances, in which rude pottery was found." (Referred to in 5th Ann. Rept. Bu. of Ethno., p. 14. Also in Preh. Am., Vol. 2, p. 233.)

ANTIQUITY OF THE MOUNDS AT RACINE.

On this subject Dr. Hoy says: "In regard to the antiquity of the works at Racine, it may be stated that on the mound from which I obtained the pottery, there was a burr oak stump (*Quercus macrocarpa*) which contained 250 rings; and the tree was cut ten years before. Near this I excavated another mound, on the center of which were the remains of a large stump which must have been much older. Immediately under the center of this stump I obtained an Indian cranium before mentioned. A stump on the long mound has 310 rings and near by are the remains of a large tree and an oak stump five feet in diameter. These facts indicate an antiquity of at least a thousand years." (Who Built the Mounds. Also quoted in Preh. Am., Vol. 2, p. 234.)

And also: "Near Racine there have been at least 100 mounds either opened or entirely removed, concerning 50 of which I have personal knowledge, and not one single specimen of copper has been discovered in these mounds, and this group is of the oldest type, and as they are situated in the region of abundance of copper, the fact leads to the inference that they were built before copper became of common use among the Indians."

"This is the more likely as the later mounds have not unfrequently articles manufactured from native copper." (Who Built the Mounds, p. 13.)

"I have studied carefully the large group of mounds situated near Racine, and have excavated fifty of the original one hundred and thirty-eight which Dr. Lapham and I surveyed in 1850. These Racine mounds being the oldest type, the bones were found to be entirely destitute of animal matter." (Who Built the Mounds, p. 24.)

In the view of our present knowledge Dr. Hoy's estimates of the age of these works appear to be somewhat overdrawn.

Mound Groups near Racine as they now Appear.

On October 4th of the present year, the author revisited the former sites of all prehistoric remains as shown on the accompanying map, as existing in the vicinity of Racine. He has the following report to present:

All of these mounds have been obliterated by cultivation and other improvements, with the exception of twelve conical mounds located in Mound Cemetery; two mounds have been somewhat injured, but are being well protected and will doubtless be preserved indefinitely. These mounds average from 20 to 30 feet across and from two and a half to four and a half feet in height. The former sites of the Bluff, Hoy and that part of the Mound Cemetery Group lying west and south of the cemetery are now occupied by streets and city residences. The portion of the Mound Cemetery Group lying north of the cemetery is now mostly employed as a Catholic cemetery, but all of the mounds that were located on this tract by Dr. Hoy have been destroyed, probably by cultivation before it was obtained for cemetery purposes.

The Teegarden Group, situated at the eastern end of Mound Cemetery, on a high bluff overlooking Root river, contained one of the most interesting effigy mounds in southern Wisconsin. It is 225 feet long, from two to twelve feet wide, and two feet high. This group contains another mound of the same tapering form, 35

feet long. There are besides two conical mounds, one large and one small, and Dr. Hoy's original map also showed four excavations, probably used as caches for corn.

Evidently no precautions have been taken toward securing the protection of this interesting group and no excuse ought to be accepted for their having been neglected. The long mound has been dug into and across in several places, presumably for soil which could have been obtained as well elsewhere. The smaller mounds in this group have suffered the same abuse, until one would hardly suspect from their appearance their true character. Besides destroying their beauty by digging, the site of these mounds is used as a dumping ground for the refuse from the cemetery.

It is sincerely hoped that those in authority will at once give this matter their attention, and cause this noted group to be restored and protected. This can be done at small cost, and it will then become one of the most interesting features of the cemetery. These two remaining effigy mounds should not be lost forever; restore and preserve them in the interest of education and for the benefit of future generations, if for nothing else.

The accompanying map will convey to the reader a correct idea of the interesting groups at this place. With the exception of some slight additions made by the author, this map is an exact copy of the original drawing by Dr. Hoy, from which Dr. I. A. Lapham's map of "Ancient Works near Racine" was reproduced. The original drawing is now in the possession of Mr. Chas. E. Brown, of Milwaukee, who kindly loaned it to the writer.

RACINE GARDEN BEDS.

13. The author is indebted to Mr. Charles E. Brown for the following information concerning these. Mr. Brown writes as follows:

MILWAUKEE, Wis., Sept. 23, 1903.

MR. GEORGE A. WEST,
Milwaukee, Wis.

DEAR SIR:—In searching through the minutes of the Lapham Archeological Society, of Milwaukee, now in my possession, for information concerning the garden beds at Racine, I find the following: "Minutes of meeting of May 4, 1877.—The Corresponding Secretary (Mr. C. T. Hawley) read a letter from

Dr. P. R. Hoy (of Racine) inviting the Society to join in an exploration of the ancient garden beds at Racine. The invitation was accepted. The President (Mr. Geo. H. Paul) appointed Messrs. C. T. Hawley, Geo. W. Peckham and H. H. Oldenhage to take charge of the work and make a report at the next meeting." "Minutes of meeting of Sept. 7, 1877.—Messrs. Peckham and Oldenhage reported on the Racine mounds and garden beds. Mr. Theodore D. Brown, C. E., presented a plat of the same, after a survey made by himself." The report of the committee is given herewith. Mr. Brown's carefully prepared diagram of the garden beds has unfortunately become lost or mislaid.

Yours sincerely,

CHARLES E. BROWN.

THE REPORT.

"The Garden Beds surveyed by several members of this Society, on May 12, 1877, are situated on the farm of James Walker, Mount Pleasant Township, about two miles from Racine, Wis. They were discovered by Mr. James Walker, Feb. 19, 1876, while felling a large white oak tree five feet in diameter. Mr. W. noticed some regular ridges and at once pronounced it to be an Indian garden. Dr. Hoy examined the ground a few days afterwards and arrived at the same conclusion. (For dimensions see Mr. Brown's map.)

The garden is situated on a river bottom, only a few feet from Root River. The soil is river deposit and very rich. The ridges average about four feet in width, and the path between them about fifteen inches, the depth of which is about 6 inches. They are parallel, running from east to west, except at one place where several of them after running east and west a short distance, turn north and south making nearly a right angle.

The ground is so densely covered with large trees that cultivation under them has been impossible since the present forest growth has had a foot-hold. We examined the stump of one of the largest trees and counted about 400 rings which would make it about 400 years old.

It would be wrong, however, to infer that the age of the trees now growing in this ancient corn field is a measure of the time which has elapsed since its abandonment. It simply shows us that it was already abandoned before the present trees began to grow. And it is very probable that several generations of the same trees grew there before the present ones flourished. These,

again may have been preceded by other trees of different species. The trees now growing, therefore, are not a measure of the age of these works.

It is an interesting fact that the remains of many ancient works have been found in this vicinity, "showing," as Dr. Lapham remarks concerning this region, "that, notwithstanding the great difference between the moral, social, political and other conditions of the red and white man, they usually fix upon the same points as favorite places of residence."

East of the garden, upon the high ground, were found two mounds containing pottery and human skeletons. Upon a high point, a short distance to the south handful of arrow heads, Mr. Eager informed us, could be scraped up where the ground was first cultivated. Towards the city in the vicinity of the city cemetery, 128 burial mounds have been located by Drs. Hoy and Lapham, 90 of them within less space than 15 acres. A few circles and semi-circles in the same locality have also been described by the same authorities."

Rev. Stephen D. Peet, the veteran archeologist, visited the Racine works in 1882, in company with Dr. Hoy. Writing of them in 1898 (*Preh. Am.* Vol. 2, p. 135-36) he gives the following additional information and conclusions regarding these garden beds. He was probably unaware that a survey and plat of them had been made by the Lapham Archeological Society, many years before. "Our impression is that these beds were connected with a village site; the village site having been upon a hilltop, near the bank of the river, and at such a place as to secure a defense from the natural situation of it. There are many mounds on this hilltop, some of them burial mounds, others defensive in their character, and still other mounds or circles which were probably used for dances. In connection with this group are graded ways showing that the people were accustomed to pass frequently from the hilltop to the valley of the stream below. These graded ways were guarded by circular walls and by effigies and near them were look-out mounds.

The impression is gained from the locality that the villagers depended upon their location for defence, but that the subsistence was gained in part from these garden beds, which were not far away and access to which could be gained either by the river or by a trail.

The bluff is precipitous, but on the summit of the bluff, opposite, a high conical mound is placed in just the spot where an

outlook can be gained along the valley of the stream in both directions, as if the purpose was to defend the village site in that way. A corresponding outlook mound is also on the point of bluff to the west, but commanding a view further up the stream. The garden beds are north of these in the valley of the stream."

"These were in a spot which was hidden away from observation on the rich bottom land on the south side of a high bluff. They were scattered over the surface and among them were traces of caches or pits where the products were stored. There were growing near them large elm trees. The trees may have been growing when the garden beds were planted, but with the bluffs sheltering the spot from the cold winds and the rich soil favoring the products and the absence of all underbrush from the valley there would be no need of cutting down the trees, and the impression is that they were the garden beds which belonged to the ancient village of the mound-builders." (Also noticed by him in *Am. Antiq.*, Vol. 7, 1885, pp. 23, 29 and 30.)

During a recent visit to this locality, on October 4, 1903, the author was still able to find here and there faint traces of a portion of these beds.

On the low ground running back into what is known as Walker's Grove, he found twenty-six partial rows of corn hills. All the remaining portion of what was at one time an extensive series of garden beds is now under cultivation.

HOY CACHE.

14. This is briefly alluded to by Dr. Hoy (*Antiq. of Wis.* p. 8), who states that: "Some workmen, in digging a ditch through a peat swamp, near Racine, found a deposit of disks of hornstone, about thirty in number. They were immediately on the clay bottom of the peat, about two feet and a half below the surface. Some of the disks were quite regular; they vary from half a pound to a pound in weight."

This interesting discovery has also been referred to and Dr. Hoy's description quoted by Dr. Daniel Wilson in *U. S. Smith. Rept.*, Vol. 2, p. 298; by Dr. Chas. Rau in 1868 *U. S. Smith. Rept.*, p. 405; and by Dr. J. F. Snyder in the *U. S. Smith. Rept.* for 1876, p. 433.

This cache was found about 150 yards southwest of the bend of Root River, and about sixty yards south of Spring Creek.

In the accompanying illustration there is shown one of these disks, which was presented to the author by Dr. Hoy. This hand-

some implement is made of reddish brown hornstone and is $4\frac{1}{4}$ inches in length and $3\frac{3}{8}$ inches in width and $\frac{3}{4}$ of an inch in thickness at the middle. Some of the others were of larger dimensions.



HOY CACHE DISK.

Of these some were presented by Dr. Hoy to Dr. Increase A. Lapham, to Mr. F. S. Perkins and the U. S. National Museum. It seems indeed a pity that so remarkable and valuable a find should not have been kept intact.

Town of Caledonia.

THE HAAS GRAVEL PIT BURIALS.

15. Dr. Hoy reports the finding by Mr. William Haas in the town of Caledonia, on section 23, in an Indian grave, of a copper implement eight inches long. The grave was situated on a high bank overlooking Root river. Dr. Hoy, on visiting the location, found there three graves, partially uncovered by the washing away of the bank. Three skeletons were found, two being those of adults and the third that of a child. The adult graves were situated 10 feet apart and 16 inches below the surface. In these graves he found several copper implements and beads, nearly all of which were badly oxidized, while some articles had nearly disappeared. Each of the three graves contained remnants of pottery containing paint. The child's grave contained a few glass beads. In each adult's grave, there were the leg bones of deer.

Dr. Hoy credits Mr. John Trasen, a resident of this locality, for calling his attention to this site. (Who Built the Mounds, pp. 11-12.) (W $\frac{1}{2}$ of S.E. $\frac{1}{4}$ of Section 23.)

HALTER VILLAGE SITE.

16. On the Northeast Quarter of Section 6, Range 22, on the Louis Halter farm, the author in 1878, discovered an Indian village site. This site is near the south bank of Root river and occupied a level tract of land upon which were found some fragments of pottery, many flint chips, several dozen stone axes, celts, fine ornaments, pipes, spear, and arrowpoints. In the stone foundation of the Halter barn, the author found half a dozen fine stone axes, which had been placed in the wall by workmen who did not appreciate their value. Many of the specimens found on this site were of exceptionally fine workmanship.

TABOR VILLAGE SITE.

17. A village site is located on the bank of Lake Michigan, two and one half miles southeast of the Station known as Tabor, on Southeast Quarter of Section 16. This site is located on the Lake Shore trail. Near it was an aboriginal cemetery, on the high bank of Lake Michigan. All traces of this have now vanished before the encroachment of the waters of the lake.

The author is indebted to Mr. O. L. Hollister of Milwaukee for a report of a visit to this locality. Mr. Hollister writes:

"Last summer (1902) Mr. Charles Koubeck and myself

visited the lake shore east and a little south of Tabor, and there found evidences of the location of an aboriginal camp or village site. I do not know who owns the property, but it is immediately adjacent to the sand pits of Henry Gloede and near the farm house of Mr. John Worteshek. The site is on a sandy bluff overlooking the lake and just south of a brooklet flowing into it. Here we found many fire-marked stones which had evidently surrounded one or more fires. Chips and fragments of chert were very numerous and we brought away with us quite a collection of them. We also found a number of arrow points and were informed that these were quite frequently found on the adjacent land. We noticed a great many fragments of chert which were plainly broken by the action of fire. We also gathered a few potsherds.

It is claimed that an Indian trail formerly led across the farm of Mr. Klofanda, directly east of Tabor. Portions of it can still be traced. We had this information from the Klofanda family, who are old residents."

TABOR CEMETERY.

18. Mr. John A. Worteshek, who has resided near Tabor for 33 years, informs me that some years ago they found many human bones in an old Indian burying ground located three miles southeast of Tabor, on the bank of Lake Michigan. Since then the lake has destroyed all traces of it. A large quantity of stone implements and ornaments were found in these graves, and along the Lake Shore trail near by. He also states that a large box of these implements was sent to a museum in Bohemia. This cemetery was located on the northeast quarter of Section 21.

Town of Raymond.

RAYMOND CENTER CORNFIELD.

19. A small Indian cornfield, of about four acres in extent, once existed on the farm of Mr. Geo. West of Raymond, (N. W. $\frac{1}{4}$ of Sec. 22, Town 4, Range 21), half a mile southeast of Raymond Center. The corn was planted in irregular hills, without any apparent attempt at forming rows, and was probably the work of modern Indians. It is located on a sloping hillside, partly grown up to a second growth forest containing many white oak and hickory stumps of large trees. An Indian trail, still visible for a thousand yards, passed the field on the east. Along this trail were found, by Mr. Robert McPherson, a very fine slate gorget

and a few stone hammers and arrow points. Mr. McPherson informed me that when his father came to the country, corn was cultivated here by the Pottawatomie Indians.

RICHARDS CAMP SITE.

20. On the north half of Section 3, on the farm of Samuel J. Richards, on the west bank of Root river, was doubtless located a village or camp site. A very fine maple forest, and a large clear spring located here have been the principal attractions, for the Indian loves maple sugar and pure water. Some of the large maple trees, near this site, when cut down showed evidence of tapping hundreds of years ago. Flint implements have been found on this site in large numbers. This location is within half a mile of a group of gravel pit burials, located in Milwaukee County, and which will be described by Mr. Charles E. Brown, of Milwaukee, who is preparing an exhaustive report on the archaeology of that district.

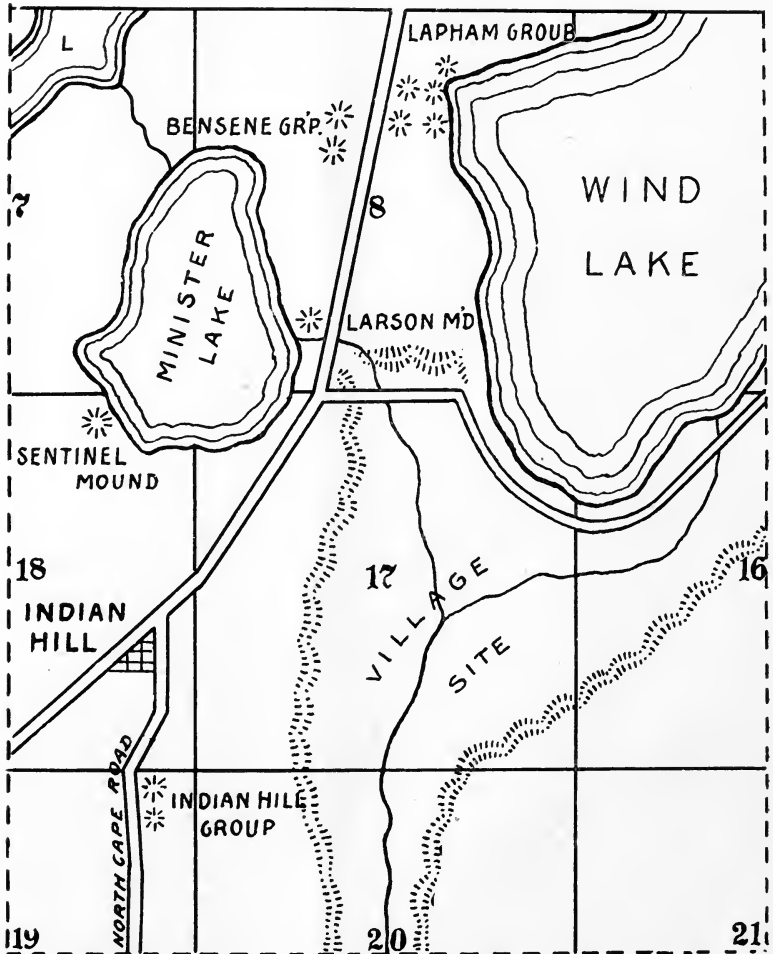
WEST GROUP.

21. On page 26 of Dr. Hoy's publication, "Who Built the Mounds," there is to be seen a report by Geo. A. West, made in 1881, of the discovery by Geo. West and John Davis, while trapping along Root river, of two small mounds on the northwest quarter of Section 15, town of Raymond. The mounds were situated on the east bank of the stream, above high water mark, yet very near the water. One was partly eaten away by the stream, and the other, situated a few rods away, overgrown with hazel brush. A few large trees stood nearby. These mounds were originally each about ten feet across and two and a half feet above the level of the surrounding ground.

Upon opening one of them there was found a sort of cavity containing fragments of bone and dark streaks of earth, which marked the location of what was at one time a human form, and near the center of the mound was found a copper kettle with a hole in its bottom, and within it a quantity of dark earth, which was composed mostly of vegetable matter. The kettle was about six inches across with straight sides, and unperforated ears. In one place in its side, where there had been a hole, a copper rivet had been inserted. This kettle was much corroded. It must have been very thin when new. There were also found two irregular pieces of hammered copper and a copper spearhead about three inches long with rivet hole in shank.

(See also Am. Antiquarian, vol. 6, No. 2, pp. 107-108. Also 12th Ann. Rept. Bu. of Ethno., p. 117.)

These mounds have since almost entirely dissappeared; their destruction being principally due to high water and the action of the ice.



WIND LAKE GROUPS.

Town of Norway.

LAPHAM GROUP.

22. (P. 24, *Antiq. of Wis.*) Dr. Lapham states that "on the west side of Wind lake (North-east Quarter of Section 8, Township 4, Range 20), we discovered five conical mounds, but no other works in their vicinity."

This group is doubtless a part of the same system of mounds as those on the west side of Muskego Lake, (in Waukesha Co.)

During September, 1903, the author, accompanied by Mr. Arthur Wenz, of Milwaukee, a member of the Wisconsin Archeological Society, visited the territory lying along the west shore of Wind lake with the following results:

No difficulty was experienced in finding the location of the five conical mounds mentioned by Dr. Lapham, especially as the author was familiar with the ground and had made a sketch of them twenty-five years before.

The mounds are about forty feet above Wind lake on a level tract of land, situated between the lake and the highway.

Two of them which are farthest to the southwest were situated about 150 yards east of the highway, on land now owned by Mr. Emil Petzold. Two more were on the same property on the bank of the lake in the rear of Mr. Petzold's barn. These have been entirely removed, either for the purpose of obtaining sand and gravel for the roads or for the use of a tile factory located near by. The fifth was on the bank of the lake on the site of the tile factory.

Of the two first mentioned, the one farthest west is entirely obliterated and a hotel building now covers the site. Mr. Petzold informed us that in digging the cellar some ten years ago, many human bones were thrown out.

A portion only of the other now remains. This one lies partly on the driveway of Mr. Petzold and partly on the land of Mr. C. Bensene. The plow has leveled one part and the cutting down to the driveway on the other side has thus left a ridge 28 feet long and about three and a half feet high at the middle. The cutting was not sufficiently deep to reach the grave cavity, if the mound contains one. On top of the remaining portion are two burr oak stumps, one nearly two feet in diameter. They are in an advanced stage of decay.

BENSENE MOUNDS.

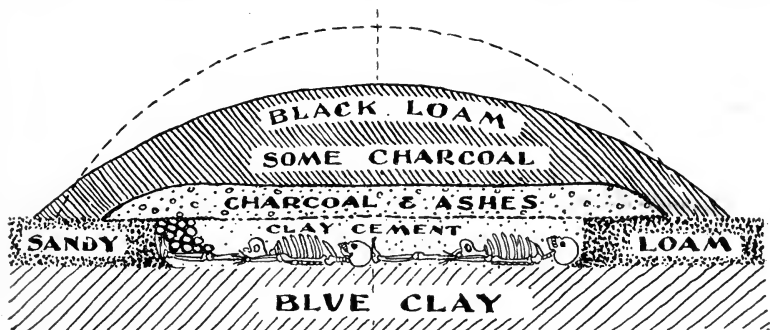
23. We located two conical mounds, heretofore not reported, on the farm of Mr. C. Bensene in the northwest quarter of Section 8. These mounds were situated on level ground, about forty feet about the level of the lake, and three hundred feet west of the highway. They are about sixty feet apart.

The north mound, Mr. Bensene said, was graded down by his father about 40 years ago. There still remains a very distinct elevation showing its former location. The mound was never opened. It was originally, so we were informed, and present indications would bear out the statement, about 32 feet in diameter and four feet high. The second mound is sixty feet south of this one and is represented by an irregular elevation about two feet high. Mrs. Hans A. Jacobson, a prominent resident of the Town of Norway, informed us that Col.— Hegg's father owned the farm containing these mounds, when she came to the country in 1844. That a year or two previous to this time, the south mound was excavated, the sides boarded up and a roof put on, making a comfortable one-room house. That she, with her folks, lived in this rude dwelling for a year or more. That this mound must have been thirty feet across and four feet high. That it was a well known fact, that when this mound was opened, fourteen skeletons were taken from it and that she never heard of any implements or ornaments being found. Several other old residents were interviewed and each corroborated the statements made by Mrs. Jacobson.

LARSON MOUNDS.

24. We next visited Mr. John L. Larson, who owns a strip of land in the southwest quarter of Section 8, where we found a conical mound located about 20 feet above Minister lake, about 100 feet west of the highway and about 100 yards from the bank of the lake. This mound measured thirty feet in diameter and three feet high. It has been under cultivation for over twenty years, and it must have been originally at least four feet high. Mr. Larson opened this mound in October, 1902, and found in it twenty-one skeletons, a few of which were those of children. The skeletons were so far decayed that they crumbled when touched. These remains were found fourteen inches below the surrounding surface on the blue clay subsoil. The color of the soil showed plainly that the tomb was fourteen feet long and twelve feet wide, with rounded corners. The skeletons

were in a double row, all being laid with their heads to the east. The six longest skeletons had their leg bones, up to their bodies, covered with cobble stones, evidently taken from the lake. In the southwest corner of the grave was found at least half a bushel of burnt rocks, so badly fused that they crumbled with ease. The skeletons were covered with about eight inches of rather hard clay or cement; above this was about eight inches of almost



SECTION OF LARSON MOUND.

pure ashes and charcoal. From this strata of ashes, to the top of the mound, charcoal and ashes were mixed with the black loam. No implements or ornaments were found in the mound but an abundance of arrow points and chips have been found in the vicinity. We found many fragments of bone on the surface, which had probably been left there when the mound was opened. Mr. Larson promised us to restore the mound and placard it, giving an account of its contents. He has an incentive for so doing, as he is parking the tract for summer resort purposes.

SENTINEL MOUND.

25. Mr. John L. Larson assisted us in locating a conical mound in the woods on the northeast quarter of Section 18, on high ground, near the bank of Minister lake. This mound is 14 feet across and 3½ feet high and has not been disturbed. On account of its imposing location, we named this mound the "Sentinel."

INDIAN HILL MOUNDS.

26. We located the site of two other mounds on the northeast quarter of Section 19, about 80 rods southwest of the Luth-

eran Church, which is located on a prominence known as Indian Hill. These mounds were situated about 100 feet from the North Cape road on the farm of Mr. John Larson. They were reported to us as being conical in shape, at least 30 feet in diameter and three feet high, and were located on level ground. Over 40 years ago Mr. John Larson graded down these mounds, using the ground for the filling in of some small sloughs, but did not go deep enough to find remains if any were buried there. He is said to have found a quantity of arrow points and stone axes in them. These two mounds, like the Bensene mounds, and the Larson mounds, were probably missed by Dr. Lapham, when he passed through this country, because of their location in the dense forest.

WIND LAKE VILLAGE SITE.

27. On Section 17, we located an extensive village site not heretofore reported. It is situated on both sides of Muskego creek, the outlet of Wind lake, extending south from the lake for three-quarters of a mile. The same site continued up the outlet to Minister lake and extended along the right bank of this lake for some distance.

Mrs. Jacobson, an old resident, upon whose land part of this village site was located, remembers that as late as 50 years back, the Pottawatomie Indians used this same location for camping purposes.

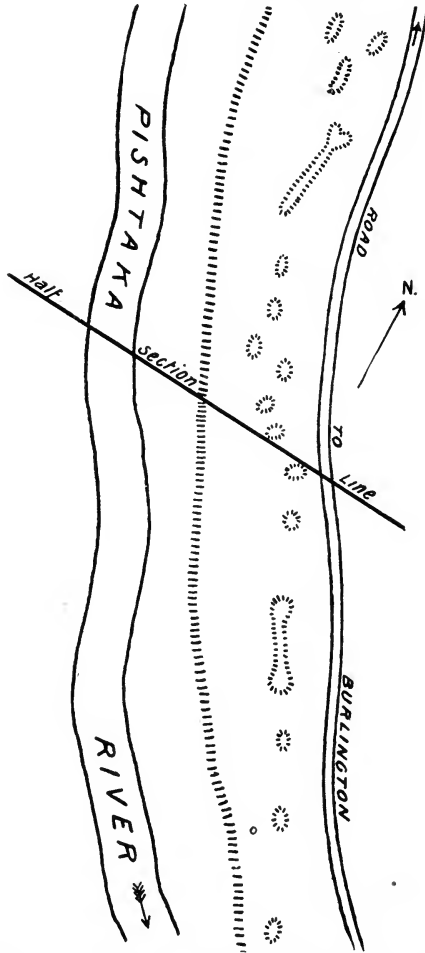
The site occupied low, rich land, and from information gathered from early settlers, parts of it originally showed signs of cultivation; most of it is now planted to corn. From this site thousands of implements, ornaments, fragments of pottery and flint chips have been collected; in fact, this place has produced more specimens of aboriginal handiwork than any other location in Racine County. The Fox river and Milwaukee trail passed over Indian Hill, on its way from the Fox river to this village.

Township of Burlington.

BURLINGTON GROUP.

28. Dr. I. A. Lapham, in his *Antiquities of Wisconsin*, (p. 24), describes a series of mounds arranged in irregular rows along the margin of the Fox River opposite the Village of Burlington. The largest of these, near the middle, was ten feet high and fifty feet in diameter at the base. It was connected with the next by an embankment, a circumstance observed in several other cases. At

the north or upper end of the series, were four oblong mounds; one with a divided extremity, or horns. Eleven conical tumuli were then traced (1850) and some others, it is said, had been



removed. Persons of lively imagination might suppose this series to represent a serpent, with mouth open, in the act of swallowing its prey; the series forming a sort of serpentine row.

W. W. Keating in his "Narrative of Major Stephen H. Long's

Second Expedition," (in 1823) gives the following description of a group of mounds, which Dr. Cyrus Thomas (Catalogue of Preh. Works, p. 239) believes to be identical with the foregoing described by Dr. I. A. Lapham:

"The river (Pishtako) has a fine gravelly bottom, and was easily forded. On the west side we reached a beautiful but small prairie, situated on a high bank, which approaches within 250 yards of the edge of the water; and upon this prairie we discovered a number of mounds, which appeared to have been placed with a certain degree of regularity. Of these mounds we counted 27; they vary from one to 4 ft. in height, and from 15 to 20 ft. in length; their breadth is not proportional to their length, as it seldom exceeds 6 to 8 ft.

They are placed at unequal distances, which average about 20 yds.; they are chiefly on the brow of the hill, but some of them stand at a greater distance back.

Their form appears to have been originally oval; and the slight depression on the ground, observed sometimes on both sides of the mound, seems to indicate, that it has been raised by means of the earth collecting in the immediate vicinity.

We remained ignorant of the causes of their construction, or of the circumstances under which they were executed. Of their artificial nature no doubt could be entertained."

BURLINGTON INCLOSURE.

29. A little west of the village of Burlington, Dr. Lapham observed a small inclosure of oval form, the embankment having but a slight elevation. It may, as the Doctor says, have been the place of a mud house, or some structure, the decay of which has left only this evidence of its former existence. There were said to be others similar to it in its vicinity. A stone ax and a flint arrow-point were obtained here. (Antiq. of Wis., p. 24.)

WHITE RIVER GROUP.

30. The following copy of a letter from Mr. Nathaniel Dickinson of Elkhorn, Wis., gives a very complete description of these mounds. (Who Built the Mounds, p. 27, also mentioned in the 12th Ann. Rept. Bu. of Ethno., p. 717.)

ELKHORN, WIS., June 26, 1881.

Dr. P. R. Hoy.

Dear Sir: There were originally three mounds situated near the junction of the White and Fox Rivers. In seasons of

freshets the locality of these mounds was covered with water. They occupied an irregular triangle, four to six rods apart.

The mounds in shape were each a section of a sphere. The two smaller ones were three feet in height and fifteen feet in diameter at the base. The remaining one was much larger, being six feet in elevation by twenty in diameter. They were composed of the surface sandy loam and apparently built without extended intermission of time.

In the fall of 1852, I was road commissioner and built a wooden bridge over the White River, near where it joins the Fox. This bridge has since given place to one of iron. Requiring some earth for filling the approach, I removed one of the small mounds that stood on the street.

When we came to the original surface, we found the shape of four persons, two adults and two children. Each was covered with a thick stratum of compact clay, thus forming a rude kind of sarcophagus. On breaking open these clay cases we found human bones partly decayed and three copper kettles, one of which had some nuts in it, perhaps pecans; another had what are supposed to be the bones of a rabbit; also, there were many silver ear-rings, breast pins and one beautiful double armed, ringed, silver cross, with R. C. in Roman capitals engraved in the center of the upper arm of the cross, also a large quantity of blue glass beads. The remaining small mound we opened out of curiosity. We sank a wide shaft over the center; when we came to the original surface of the soil and found one clay covered skeleton in a fine state of preservation. There was one copper kettle of rather large size and a small fur-covered, brass-nailed trunk, ten by twelve inches, and eight inches in height. In this trunk we discovered a lot of cheap silver trinkets. In the kettle there was some brown substance which we could not determine and over this brown substance were two or three folds of a woolen blanket.

I might have said, in its proper place, that the clay was obtained on the opposite shore of White River, the only locality where this kind of clay could be procured in this vicinity.

A Mr. Stowell built a house over the large mound and when they dug the cellar they removed a part of this mound, but nothing was found; still it may be that the center of the mound was not disturbed. Kettles, silver and crania were scattered, some by gift, others loaned without exacting a return, so that at this time I cannot direct you where you can obtain any of the relics.

Should you require further information in addition to the

above commonplace recital you can make any inquiry that you may wish and I will answer.

Yours truly,

NATHANIEL DICKINSON.

"In answer to further inquiry, I received the following," says Dr. Hoy:

"The clay-covered skeletons were central, and on a level with the original undisturbed soil, the second mound opened we did not sink below the base of the mound, as it would be of no use, as we fully proved in the case of the one removed, that the soil below was not disturbed, and in the second opened, the water from White River was within two feet of its base, as this mound was at a lower level than the other two mounds."

Up the Fox River Valley for a distance of twelve miles from Burlington, the author has been unable to learn of any prehistoric remains.

Mr. F. H. Nims, who has resided at Burlington since 1837, writes under date of October 8th, 1903, stating that since boyhood he had been familiar with all the prehistoric remains within the township of Burlington, and that a recent inspection of all the grounds, formerly occupied by the mound groups, has convinced him that not one of these has escaped destruction. The land they formerly covered is now occupied by streets and buildings.

Mr. Nims mentions some mounds as being formerly located on a tract now occupied by the McConna-Frasier milk condensing plant. These included one large circular and several long mounds. The circular mound contained two skeletons, and a large amount of bones were found in each of the long mounds. These formed a portion of what the author has described as the Burlington group.

Mr. Nims further reports the group at the east end of Jefferson street as entirely gone. "This group consisted of several long mounds, some of which were found to contain several skeletons. The largest mound of the group was located on a high bluff about one-third of a mile down the river from the main group. One of these was an effigy mound and appeared to represent a turtle or alligator. This mound was about eight rods in length, the body about twenty feet wide and the legs each about ten feet long. Nothing, to my knowledge, was found in this mound." These I judge to have formed a portion of the White River group.

Mr. Nims states that he knows of no other mounds in the vicinity of Burlington, and that he never heard of any about

Brown's lake, or near any other of the small lakes located in the township of Burlington.

Towns of Yorkville and Dover.

The towns of Yorkville and Dover, so far as can be ascertained, contain neither village sites or mounds. The author has been familiar with almost every acre of land in these two towns since boyhood and surely would have learned of the existence of any such evidences of pre-historic occupation. Mr. O. F. Botsford, of Racine, who has for many years resided on the banks of Eagle Lake, in the town of Dover, writes that he knows of no mounds about this lake. A number of implements have been gathered on its banks, but not in such numbers as would indicate the former location of a village site at any point.

Racine County Implements and Ornaments.

Racine County has yielded to the archeological cabinets of the state and country somewhat more than its share of aboriginal implements and ornaments of clay, bone, horn, stone, copper, brass and iron. The collections of the State Historical Society at Madison, Milwaukee Public Museum, U. S. National Museum at Washington, D. C., Dr. P. R. Hoy and Erskine Estates at Racine and the W. H. Ellsworth, H. R. Denison, W. H. Elkey and the author's own collection are particularly rich in Racine county material.

The late F. S. Perkins of Burlington began his collections here and many of the most interesting and valuable objects of aboriginal handiwork he possessed were obtained from various sites within the limits of the county.

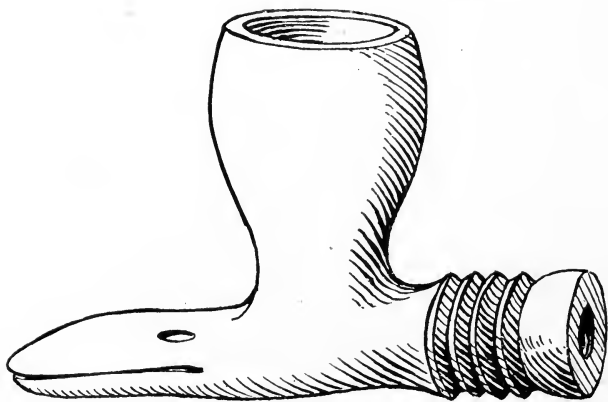
A large number of the stone implements thus assembled are fashioned of materials foreign to the state and clearly indicate early and prolonged trade, and hostile relations with the aboriginal peoples of what are now adjoining states, and in some instances of portions of America thousands of miles distant.

In a recent article on the "Occurrence of Obsidian Implements in Wisconsin" (Wis. Archeo., Vol. 2, No. 4, p. 97), Hon. P. V. Lawson makes mention of a number of black obsidian implements in the Denison and West collections at Milwaukee, which were collected at Wind lake, Oakwood and Raymond Center, in this county. Referring to the probable origin of these and other implements of the same material found in Wisconsin, he

says: "It is not to be found in place within one thousand miles of Wisconsin as the bird flies or within fourteen hundred miles by routes of aboriginal travel. There is no obsidian found in the Wisconsin glacial drift. Its presence in our state in the form of fragments, cores, flakes or finished implements therefore serves as an excellent illustration of how very far reaching were early aboriginal trade communications. But whether these were obtained directly from the deposits or the last of numerous intervening barterers we may never know."

Equally interesting in this respect are the blue and brown hornstone implements which probably came from Ohio, either in the rough or as finished artifacts, catlinite pipes from the Minnesota quarries, and chalcedony and steatite from the West.

In like manner the theory of the existence of aboriginal trade and war relations between the aborigines of this district and distant regions is borne out to a certain extent by the types and workmanship of the objects themselves. Thus there is in the Hoy collection at Racine an effigy pipe modelled by aboriginal hands in the representation of a duck's head and bearing a close re-



HOY PIPE.

semblance to a similar class of pipes occurring most commonly in the East and South. Again in the author's own cabinet there is to be seen a handsome pottery pipe of the so-called trumpet-shape which was obtained from the Halter village site in the township of Caledonia, Racine County.

This well known type of pipe is common to the Iroquois sites of the state of New York and as it is of exceedingly rare occurrence in Wisconsin archeological districts (but one other having been found in the state,* so far as the author can learn), there is therefore every reason to assume that these pipes, as well as some other articles, were lost by the warlike Iroquois of New York when they invaded this country on one of their tours of extermination. This the author believes to be more likely than that they found their way to Wisconsin in the course of aboriginal barter and trade, especially as it is a well established historical fact that this tribe frequently carried their marauding expeditions for thousands of miles into hostile territory, and that they passed through this part of the country in their raid on the Algonquin tribes.



IROQUOIS PIPE.

Halter Village Site, Town of Caledonia, Racine Co.
Geo. A. West Coll.

Other instances of the finding of implements of foreign workmanship within the confines of the county are not wanting. Limit of space does not permit of the authors noting them. In various places in the text of the present summary are noted and de-

*Jefferson County. In the author's collection.

scribed the occurrence of artifacts of particular interest to the archeologist. It will therefore be quite unnecessary to again mention them here. In the W. H. Elkey collection at Milwaukee there is a pottery vessel which was found some years ago on the Halter village site by a schoolboy. This vessel is of black pottery, unornamented, and measures six inches in height and five inches across the opening on top. Protruding from its rim there is the merest suggestion of three ears or embryo handles.

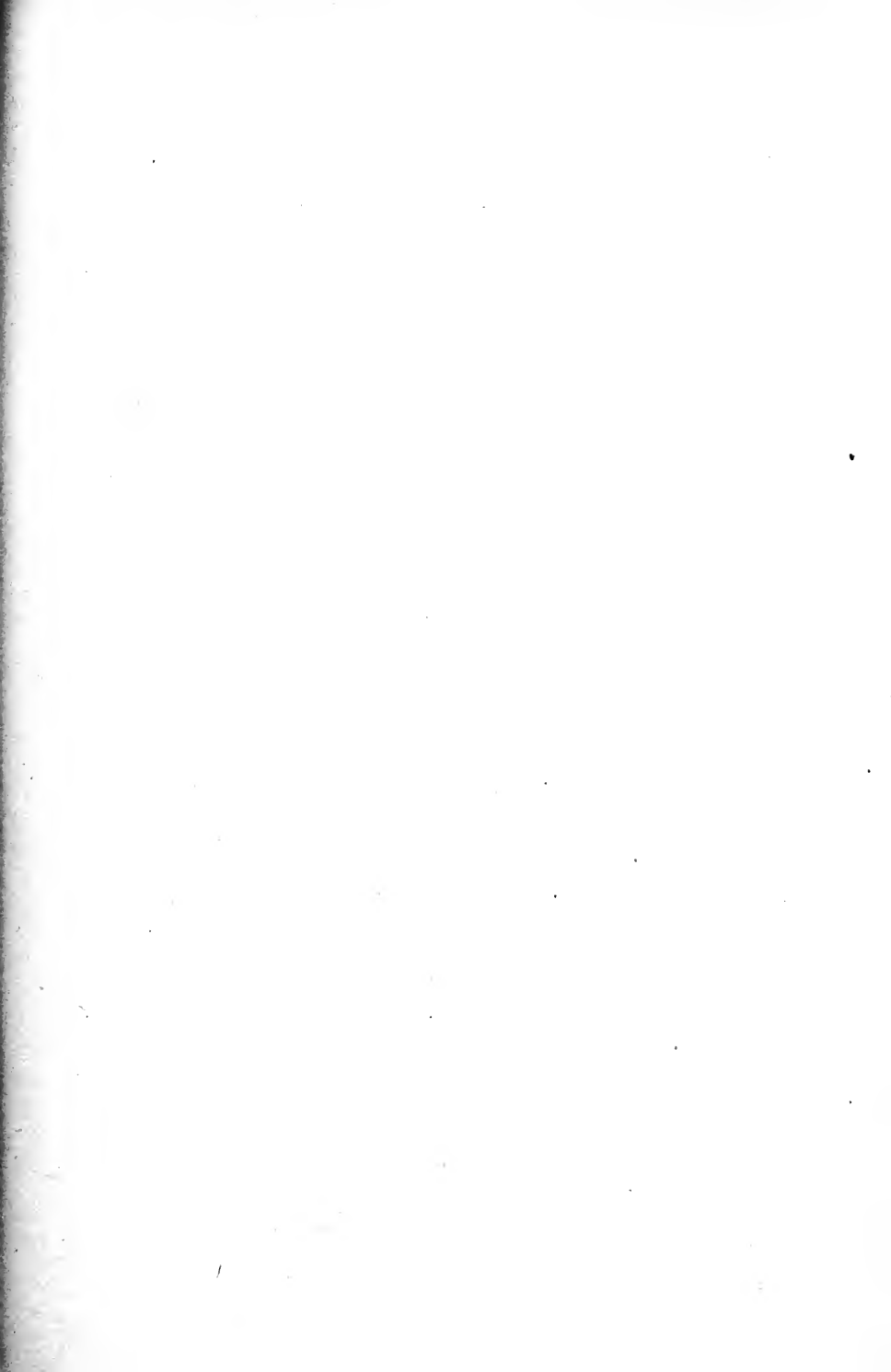
In the W. H. Ellsworth collection is a mortar which was collected by the author on the northwest quarter of Section 21, township of Raymond, near the Raymond Center corn field. This mortar is made of a grey granite pebble. It is about four inches in height, six and one-half inches in width, and will hold fully one-half pint. Stone mortars are of infrequent occurrence in our state.

As was noted in the body of this publication, there were not wanting in the local earthworks evidences of early aboriginal contact with European influences and this and other evidence has been utilized by Dr. P. R. Hoy, in to some extent determining the age of certain Racine county earthworks. The completion of a public library building at Racine leads the author to express a hope that within its halls some arrangement may be made, with the Hoy collection as a nucleus, toward the assembling and exhibition there of a typical local collection of aboriginal artifacts such as may prove of value to the educator and student in determining the culture status, physical characteristics, etc., of the aboriginal inhabitants of this district. The matter is one which should appeal to local pride and patriotism.

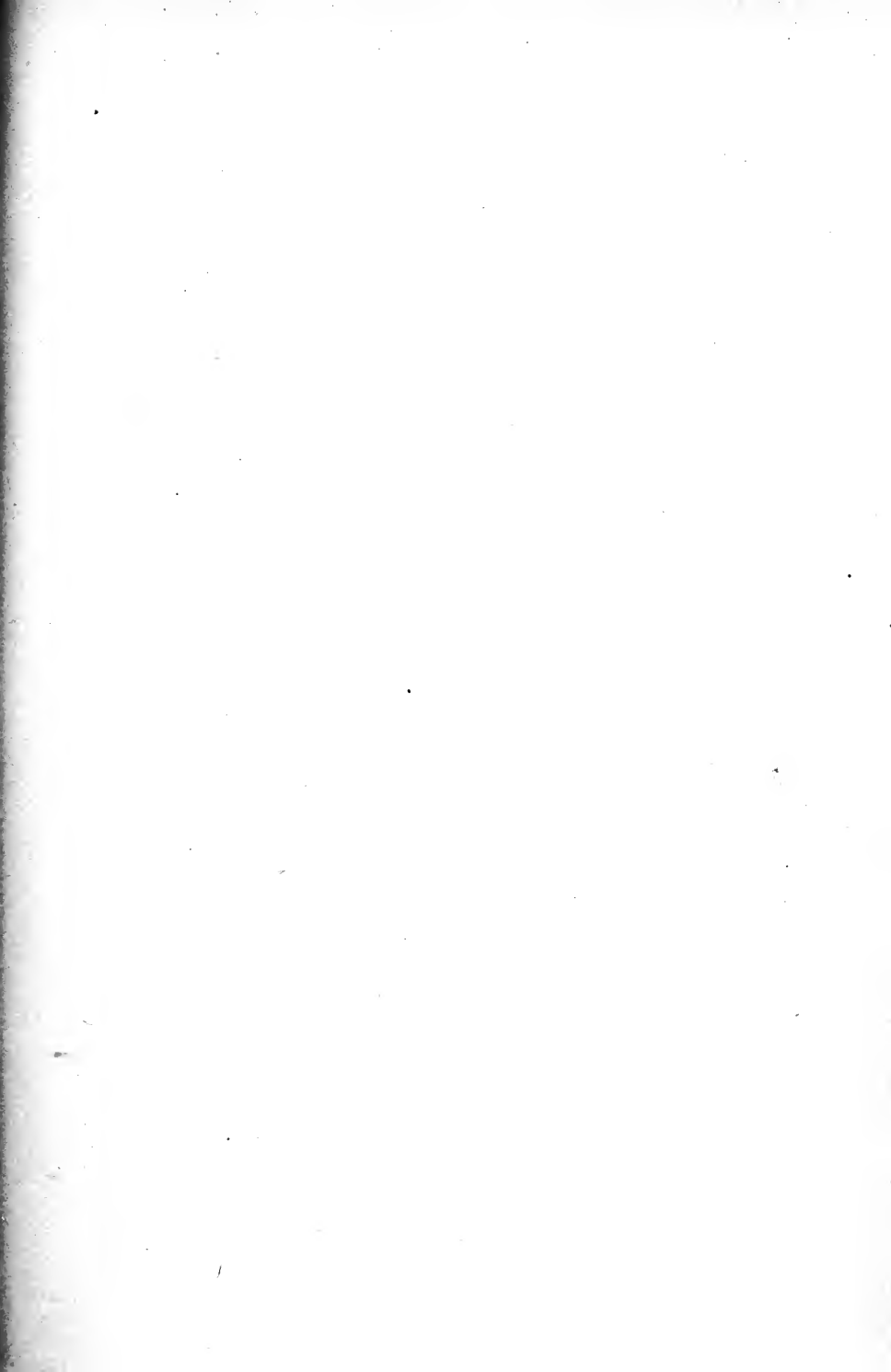
MEMBERSHIP.

It is the desire of the society to enlist the services of competent workers and interested persons in all sections of the state, and we ask the assistance of our members in securing such applications. The necessary blanks may be had by addressing Mr. James G. Albright, Chairman of the Membership Committee (531 Wells Building, Milwaukee), or the Secretary.

Extra copies of this or of the preceding bulletins may be purchased of the Secretary. The number on hand is limited.









COPPER ADZE.
(Ridged Back)
W. H. Ellsworth Collection.

THE WISCONSIN ARCHEOLOGIST

A QUARTERLY BULLETIN PUBLISHED BY THE WISCONSIN ARCHEOLOGICAL SOCIETY

Vol. 3.

MILWAUKEE, WIS., JANUARY, 1904.

No. 2.

Proceedings of the Wisconsin Archeological Society. November 6, 1903 to January 15, 1904.

MILWAUKEE, NOVEMBER 6, 1903.

XLIX Monthly Session, President H. A. Crosby, presiding. Thirty-five members and visitors present. Mr. Crosby opened the session with a short paper entitled "Popular Fallacies Regarding Prehistoric Man in America," in which he vigorously assailed many of the prevailing erroneous popular beliefs of the authorship, significance, etc., of North American antiquities. It was afterwards discussed by those present. Mr. J. G. Gregory followed with a most scholarly paper, entitled "The Columbus of the Mounds," which was greatly appreciated.

Jonathan Carver's name occupies a conspicuous place on the roll of explorers of the Northwest. Ranked in the order of chronological precedence, his position is unimpressive. Nicolet antedated him by 132 years. Radisson and Groseilliers, Marquette and Joliet, Hennepin, Du l'Hut, Le Seur and other Frenchmen had preceded him and traveled extensively in the same region during the period of French dominion. To Carver, however, must be awarded the distinction of having been the pioneer of his race in the northwest and the one first to advertise its agricultural, industrial and commercial advantages to the English-reading world. He was probably also the first of Europeans to describe in writing the vestiges of the mound builders. It was in view of this item that the author introduced him in the character of the Columbus of the Mounds.

These ancient works are located a little below Lake Pepin, on the east bank of the Mississippi River, in Buffalo County. He supposed them to represent an ancient fortification. He also left a faithful description of the various Indian villages visited by him during his travels.

The author gave an interesting sketch of the life of the great traveler and his journeyings, quoting from his book, "Three Years' Travels Through the Interior Parts of North America," which was published in London, England, in 1778. A copy of this work (1879, Dublin edition), a copy of Carver's map and his portrait were exhibited.

At the conclusion of this interesting paper the Messrs. W. H. Ellsworth and W. H. Vogel made a joint exhibit of an unusually fine collection of aboriginal stone axes, celts, hammers, spuds, chisels, adzes, gouges and large flint implements selected from their own cabinets. Mr. Thomas Morton of Chippewa Falls exhibited a flint spade and a grooved stone axe from Kansas.

Mr. Charles E. Brown announced the receipt of a gift of books and pamphlets from Dr. Stephen D. Peet, Mr. Clarence B. Moore, and the Records of the Past Exploration Society. These were to be placed in the Society's traveling library. Dr. Moorehead and other authors had promised

similar gifts. He also stated that Mr. George A. West's "Summary of the Archeology of Racine County" (being the second number of the Society's survey series) had been printed and soon would be issued to members. To those knowing Mr. West and the character of his past work, it would be unnecessary to make any comments upon the value of this contribution to Wisconsin archeology. The names of a considerable number of new members recently elected would be announced at the December session.

MILWAUKEE, DECEMBER 4, 1903.

L Monthly Session. Vice-President W. H. Ellsworth directed the meeting, Mr. Arthur Wenz acting as secretary. There were twenty members in attendance.

The election of the following new members was announced: Mr. William Finger and Mr. Henry C. Campbell of Milwaukee; Mr. B. W. Davis and Mr. E. D. Doney of Waupun; Mr. A. C. Neville of Green Bay; Dr. J. A. Junk of Sheboygan; Mr. A. V. Drown of Delafield; Dr. W. E. Wolfrum of West Bend, and Dr. L. H. Brittin of Edgewater, N. J.

It was reported that at the November meeting of the Executive Board a rearrangement of the standing committees to hold until the annual meeting in April had been made.

Mr. Charles E. Brown reported that the society's surveys in Sheboygan County, conducted by Dr. A. Gerend, were drawing near to completion and would probably be offered for publication in the spring or early summer. Mr. G. W. Wolff's careful work in the township of Rhine was to be particularly commended.

Dr. W. E. Wolfrum had begun the collection of archeological data in Washington county, and to the Messrs. W. J. Boehme and Dr. W. P. McGovern had been assigned a similar task in Ozaukee County. Field expeditions to both of these counties would probably be arranged for during the coming year. Mr. B. W. Davis had been conducting surveys in the neighborhood of Fox Lake, in Dodge County.

Prof. J. F. Lamont had promised to conduct a survey for the Society in Marathon County.

It was hoped that the new year would find a greater number of members than ever before engaged in field work.

Announcement was made of the intended preservation of a group of mounds located in Lake Park at La Crosse, by the citizens of that place.

Notices of the annual sessions of the Wisconsin Academy of Sciences and of the American Anthropological Association were read.

The program for the session consisted of a paper on "Conditions of Primitive Society" by Mr. A. K. Stebbins. This very scholarly address was afterwards discussed by those in attendance and a vote of thanks extended to the speaker.

At the close of the session Hon. J. G. Pickett exhibited a very fine copper chisel recently found at Pickett, Wis. This specimen, which is one of the largest of the type known, measured twelve and an eighth inches in length, one and five-eighths inches in width and five-eighths of an inch in thickness at the middle. Weight, twenty-nine and a half ounces.

Mr. W. W. Waters of Richland City exhibited sketches of the stone

and copper implements in his collection and Mr. F. M. Caldwell photographs of a number of mounds at Buffalo Lake, in Marquette County.

MILWAUKEE, JANUARY 15, 1904.

LI Monthly Session. Twenty-five members and visitors. President Henry A. Crosby in the chair. Mr. Arthur Wenz acted as secretary.

The election of the following new members was reported: Mr. N. E. Lee of Delafield; Mr. Albert E. Gray of West Bend; Mr. T. W. Hamilton of Berlin; Mr. G. Moore of Lone Rock; Mr. H. F. Jahn of Ironwood, and Mr. V. A. Alderson of Wausau.

Dr. Louis Lotz then gave a very interesting talk on the "Pueblos of New Mexico and Arizona," which was greatly appreciated by those present. This he illustrated with some very fine miniature models of the Pueblo of San Juan, the Mesa Verde and Cliff City ruins, constructed by himself. He also exhibited a fine collection of trinkets, textiles and pottery vessels collected in that region by himself. Also maps, diagrams and water color sketches of the people, the buildings and their interiors.

In the discussion which followed, the Messrs. M. E. Morrissey, L. R. Whitney, C. E. Brown and others participated.

Mr. C. E. Brown announced that on Dec. 30 Mr. H. A. Crosby and himself had taken advantage of an opportunity to address the members of the Wisconsin Academy of Sciences, then in session, on the subject of the "Reawakening of the Interest in Wisconsin Antiquities." These addresses had been very well received.

Mr. P. V. Lawson of Menasha had spoken before the Candlelight Club of Oshkosh on a similar subject, being ably seconded by Hon. J. G. Pickett, who exhibited a large series of implements from his fine collection.

Mr. Lawson and Mr. J. P. Schumacher had also addressed the members of the Green Bay Historical Association at its annual meeting. Mr. Schumacher had also been giving some talks to children in the Brown County schools. Mr. F. M. Benedict had consented to speak to the ladies of the Fortnightly Club at Waukesha on the subject of "Trails."

It had been decided by the executive board to urge upon the trustees of Mound cemetery at Racine, Wis., the advisability of preserving the Tee-garden group of mounds. The section of the cemetery in which they were located was now being used as a dumping ground for rubbish.

It was also decided to secure the co-operation of the Wisconsin University Board in causing the fencing in of the mounds upon the campus at Madison.

A communication from Dr. Frederick B. Wright, secretary of the Records of the Past Exploration Society of Washington, D. C., requesting the Society and its members to assist in circulating the following petition, was read:

TO THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA, IN CONGRESS ASSEMBLED:

Whereas, From an historical and scientific standpoint, great damage is daily committed in and about the prehistoric ruins and monuments located on lands belonging to the United States, by curiosity hunters, tourists, or persons in the employ of others in furtherance of commercial ventures, or by expeditions working directly in the interest of public and

quasi-public bodies, whereby many of said prehistoric monuments and ruins are damaged beyond repair, and relics of primitive origin and of great historic value are scattered and destroyed, thereby rendering them valueless as objects of scientific study for the illustration of the primitive history of America; and,

Whereas, With few exceptions the enlightened nations of the world have passed laws declaring their archeological monuments and prehistoric objects to be the property of the nation, and have prohibited, under severe penalties, the removal of the same by exploration or excavation, or by alienation thereof, without the express authorization from some legally constituted body;

Therefore, Your petitioners pray the congress of the United States to enact a law or laws governing the right of collection, exploration or excavation in or adjacent to any prehistoric monuments and ruins on government lands without the express written authority of such person or persons as congress may designate, and your petitioners further pray (1) for the passage of a law prohibiting the exportation of prehistoric objects from the United States except under such restrictions as congress in its judgment may establish; (2) that so much of all lands belonging to the United States as will assure the protection of its archeological monuments, ruins, pyramids, mounds, tombs, buildings, or other fixed objects illustrative of the history of the primitive races of America may be withdrawn from settlement, or alienation; (3) that all antiquities, movable and immovable, found on said lands, belonging to the government of the United States, which may be of interest in the study of the early and primitive history of the peoples of North America, be declared to belong to the government and people of the United States, and (4) that their removal from said lands, or their exportation from the United States, except on the written authority of some legally constituted person or body, be prohibited; (5) that to injure or destroy or deface any of said archeological monuments, ruins, and other fixed archeological remains, or to take and carry away any of the said movable objects from said government lands, be declared a misdemeanor, punishable by fine and imprisonment, unless done in pursuance of written authority from some legally designated person or body, and (6) that said authorities may only grant such permission to national, state, municipal, or other legally incorporated museums in the United States, and that provision be made for the forfeiture of any of the articles enumerated to the United States on conviction of violation of the law, and that said objects shall be deposited in some legally designated depository, and not to be removed therefrom unless in conformity to law.

This memorial was framed by a committee of persons deeply interested in the preservation of the antiquities of the United States, and we believe voices the sentiments of many thousands of the citizens of our country.

During the past few years a very general feeling has prevailed in scientific and educational centers in favor of national legislation for the protection of the remains of the prehistoric and primitive peoples of our country. Many distinguished Members of Congress have declared themselves in favor of such legislation, and we believe it only requires an expression of opinion from prominent citizens to secure suitable action by congress.

This petition will be circulated by other societies and organizations interested in historical research, and we ask that the members of this Society sign it and secure as many additional signatures of prominent citizens as possible by the 1st of March, 1904, and forward the same to this society. Copies will be mailed at once upon request.

The Native Copper Implements of Wisconsin.

BY CHARLES E. BROWN.

INTRODUCTION.

Since the year 1872, when the late Frederick S. Perkins of Burlington, Wis., is said to have obtained his first native copper implement and thus acquired the inspiration which led to the assembling of his several large and valuable collections, now safely harbored in city, state and national institutions of learning, the interest in this particular branch of archeological research has grown to such an extent that where there were fifteen years ago but two or three other cabinets deserving the name, there are in the state today and without its borders nearly twenty collections, public and private, which, both in the number and quality of their contents, will compare most favorably with any that have been previously assembled from Wisconsin soil.

Of these there may be mentioned the collections of the Messrs. H. P. Hamilton at Two Rivers, W. H. Elkey at Milwaukee, F. M. Benedict at Waupaca, S. D. Mitchell at Ripon, J. S. Pickett at Pickett, E. Wiese at Elcho, R. Kuehne and A. and J. Gerend at Sheboygan, W. P. Clarke at Milton, J. P. Schumacher at Green Bay, F. B. Fargo at Lake Mills, and others.

There are likewise the large and valuable collections of the State Historical Society at Madison, of the Milwaukee Public Museum, and of the Erskine estate at Racine. Without the state are those of the Field Columbian Museum, United States National Museum, American Museum, Pennsylvania University Museum, of Rev. E. C. Mitchell at St. Paul, Minn., Mr. Walter Wyman at Chicago, Ill., and Mr. J. T. Reeder at Calumet, Mich. Scattered throughout the state are also a considerable number of smaller, though none the less interesting cabinets, each containing from twenty-five to fifty or more specimens. A large number of single pieces are also known to be still in the hands of the original finders. The W. H. Ellsworth collection, formerly at Milwaukee.

and long considered to be one of the best ever assembled in the state, has now been broken up and its contents of over 400 pieces scattered throughout other state and outside cabinets.

The A. W. Robinson collection of Boston, Mass., another valuable Wisconsin cabinet, has also passed into other hands.

The dispersal of these fine collections is to be greatly regretted.

Let us hope that some of those here mentioned or others may yet find their way into public institutions where they may be properly cared for and thus permanently preserved to the public and archeological students of the future.

As may readily be seen from the foregoing, the amount of native copper artifacts already recovered from Wisconsin fields, village sites, mounds and graves is very large, possibly exceeding that already obtained from the balance of the United States.

Mr. P. V. Lawson of Menasha, the well known archeological student, who has recently made a careful inquiry, has a list of 13,000 copper articles which were collected in Wisconsin.

There is evidence to show that in pioneer days a very considerable number of such implements, their value being unappreciated, found their way into the hands of roving peddlers and junk dealers and afterwards into the founder's crucible. In the Milwaukee Museum are a number of implements which the late F. S. Perkins rescued from such a fate.

Others have been found useful by their original finders and wholly or partially destroyed.

Although the collecting of these implements in Wisconsin has already continued for nearly thirty years the supply has not yet become exhausted.

The opening to cultivation of new lands in the central and northern portions of the state, the increase in the number of collectors, and the re-investigation of old sites, causes each passing year to add its large number to the total already in collections.

In the past numerous articles on the subject of Wisconsin copper implements have appeared in the state press, in the reports and proceedings of local societies and institutions, and elsewhere.

Many of these are in the light of our present knowledge misleading or almost utterly worthless and but a very small number of them are calculated to be at all helpful to the local student.

Unfortunately even these are not always accessible, so that the amount of literature at his command is meager indeed.

To these conditions are probably in large part due the fact that in Wisconsin, where, on account of its close proximity to the source of supply, so large a number of copper implements have already been unearthed, and where we should naturally expect to find authorities on this subject, there are at present so very few students and so many collectors.

If this depressing state of affairs is not to continue, then it is high time that some one should take the initiative toward summarizing and classifying the information already in hand and thus convey to the student an idea of the points upon which our knowledge is deficient and encourage and enable him to assist in closing up the gaps and correcting any mistakes that may have occurred, to the end that when this data shall have been added to that already accumulated and now being assembled by the members of this Society in other fields and departments of local archeological research, we may be able to tell a more exact and intelligent story of the life history of our Wisconsin aborigines. With this end in view the author has permitted himself to be induced by his brother members of the Wisconsin Archeological Society to undertake, with their assistance, the difficult task of collecting, collating and transcribing such facts and information, accessible at the present time, as might be of benefit to local students or others interested in this special field of research.

Owing to the size of the subject and the small amount of space at our command, it has been found necessary to touch but very briefly upon some of its various phases. For the same reason also only the copper implements proper are included in our classification, the ornaments being reserved for treatment in a future bulletin.

The author's somewhat hurried departure from Wisconsin to participate in the installation of the U. S. Philippine Commission exhibits at the Louisiana Purchase Exposition, at St. Louis, Mo., has necessitated the leaving of the reading of the final proofs and preparation of the cuts accompanying this manuscript to others.

He regrets that a bibliography of the local and other literature upon the subject can not be included. It is to be hoped that in the near future, through the activity of our local students, a more complete treatise on Wisconsin's native copper artifacts may be published. The author is under especial obligations to the Messrs. W. H. Ellsworth, H. P. Hamilton, G. A. West, J. T.

Reeder, J. F. Snyder, T. H. Lewis, H. A. Crosby, P. V. Lawson, and others, who have variously advised and assisted him in the publication of the present treatise. To the Messrs. W. H. Elkey, F. M. Benedict, J. G. Pickett, S. D. Mitchell, A. and J. Gerend, R. Kuehne, G. W. Wolff, H. G. Schuette, J. P. Schumacher, E. C. Perkins, F. M. Le Count, F. Mueller, A. J. Berry, L. S. Drew, F. M. Caldwell, T. W. Hamilton, E. H. Stiles, P. A. Seifert, E. Wiese, J. J. Radley, C. E. Wood, R. L. Porter, W. H. Vogel and many others, he desires to express his thanks for their kindness in either permitting him to examine their collections or for photographs, sketches and information of their contents.

AUTHORS AND AGE.

As a result of scientific research and study much of the mystery which has heretofore surrounded these people has now been dispelled. The conclusion now almost universally accepted among archeologists is that there is no reason for attributing the working of the copper deposits or fabrication of the implements to any other people than the Indians. The early explorers found both the northern and southern tribes in this country using implements and ornaments of native copper, often in common with those of stone. From South America to as far north as Canada almost every traveller refers to this metal being in the possession of or employed by the natives.

Many of these accounts have been so often quoted by writers on North American archeology that they are entirely familiar to the student, and there is therefore no necessity of repeating them here. There is no doubt but that some of these accounts refer to European metal obtained from earlier visitors or traders, or possibly from shipwrecks along the coast. This the natives soon became quite proficient in fashioning into articles adapted or better adapted to their needs than the ruder articles which they then employed. Mr. Clarence B. Moore, the distinguished archeologist, who has given much attention to the study of this introduced metal, states that much of it was in reality brass, earlier as well as some later writers failing to distinguish between it and the native metal. It is equally certain that other accounts refer to the native metal or to objects fashioned therefrom.

Whether the working of the copper deposits or the fabrication of copper implements in this section of the country, thought to have been begun at least several centuries before, was discontin-

ued before the coming of the white man, or whether the industry was continued or at least to some extent resumed by the descendants of the pre-Columbian miners and artificers during and after his intrusion, is still in dispute. It is doubtful whether this matter will ever be satisfactorily settled.

The accounts of the Jesuits, as given in the *Relations*, give the impression that while the Indians of that period were evidently familiar with the sources of the metal, they regarded it with superstition and employed it only in a reverential way. On the other hand, Dr. P. R. Hoy of our own state, the value of whose careful researches is unquestioned, has furnished the testimony of Indian agents, in a position to know, of the recent employment of copper arrow and spearpoints among the Winnebagoes and Chippewas. He believed as a result of his own investigations that many of the copper implements were made after the advent of the earliest whites, a theory difficult of substantiation. Doubts have also been expressed by some scientific men as to the ability of the Indians to design and fabricate, without the tuition of white men, any but the simpler forms of implements. The resemblance of some of these to European types has been cited in support of such a belief. This resemblance cannot be denied. It is, however, more naturally accounted for in another way. Like needs with like suitable materials at command, we know, have induced widely separated peoples to produce implements of identical or remarkably similar patterns.

From the oxidization of these implements we are able to form only a vague idea of their age, since the state of decomposition depends largely upon the nature of the soil in which they are found imbedded, exactly similar patterns obtained from the sandy Lake Michigan shore village sites, and those of other regions in the state, differing much in both the character and amount of their patination. More conclusive evidence may possibly be furnished by the numerous variations in the types of some local implements, which may be construed to indicate their employment for a long period of years. These are points which we recommend to the consideration of the Wisconsin student.

SOURCE OF THE METAL.

The source of the metal from which these implements were fabricated is too well known to warrant conjecture. The aboriginal copper workings at Isle Royale, Keweenaw, Ontonagon and else-

where in the Lake Superior district were very extensive and have been frequently described by various archeologists and writers. The following extract from a recent communication received from Mr. J. T. Reeder of the Tamarack Mining Company at Calumet, Mich.; the well known student of archeology, is of interest:

"On this peninsula where I reside, including Keweenaw, Houghton and Ontonagon Counties, the copper bodies running almost parallel to the position of Keweenaw Point are some three to four miles wide, and extend from Lake Gogebic on the south to the end of Keweenaw Point on the north, a distance of about 100 miles.

Around the Victoria location, the old Minnesota (which is now the Michigan), the Rockland, the Mass and Adventure, and Winona, are hundreds of old Indian copper pits. To say that there are thousands would not be exaggerating. They extend from a few feet to as much as thirty feet into the gravel and solid rock.

These pits are invariably on the copper bearing veins, on the richest veins that have been discovered by man, even to this day. With the territory extending from the Winona (formerly the Huron and Houghton) I am not well acquainted, but on the old Huron location (now the Isle Royale), the Quincy and Franklin, and again at the Copper Falls, Cliff, Phoenix, Delaware and Copper Harbor hundreds of so-called aboriginal workings are to be seen. The aborigines have here confined themselves, as in Ontonagon County, to the richest copper bearing lodes."

The aboriginal copper workings at Isle Royale are said to extend over some fifteen or twenty miles of country. There can be no doubt but that a very large amount of metal was obtained and distributed from these sources.

It has been shown by Mr. Clarence B. Moore that the southern Indians were not wholly dependent upon the Lake Superior district for a supply of this metal. Nevertheless he believes it safe to assume that the above mentioned region furnished the greater part of the supply. In his valuable work entitled "Certain Sand Mounds of the St. John's River, Florida" (Part II), he has provided the student with a list of all the known localities from which copper may have been obtained by the Indians. The following information is borrowed from this interesting chapter:

In the Southern, Eastern and Middle states the deposits of copper were too limited to justify any theory of a sufficient supply. Doubtless copper nuggets were utilized when found. In New Mexico and Arizona there were small quantities of native copper accessible to the Indians. Other deposits in this district were at too great a depth to permit of aboriginal working. Mr. Moore believes it probable that some of the products of this region may have reached the southern states and possibly Florida.

In various parts of Wisconsin large quantities of the so-called "float" copper, supposed to have been distributed by glacial action, have been found.

In the writer's possession are many records of the finding of such nuggets, some pieces weighing hundreds of pounds. There can be no doubt but that it also was utilized by the Wisconsin Indians. Glacial copper is distributed over a very large portion of the Northern United States.

MINING.

There is no longer any doubt as to the method employed by the aborigines in procuring the copper. Careful study and investigation of the copper workings in the Lake Superior region by leading archeologists and mining experts has shown that in the obtaining of the ore only the simplest of mechanical devices were employed, such as stone hammers or mauls for breaking away the rock; wooden paddles or shovels for digging or removing the loose rock and dirt; wooden poles or levers or like simple devices for elevating or moving the larger masses, and copper axes, chisels and other implements for cutting them up. In some instances wooden bowls are thought to have been used for baling water from the pits when this became necessary.

The following is an abstract of a report by the distinguished archeologist, Mr. W. H. Holmes, who visited and made a careful study of this region:

"The Lake Superior copper occurs in veins, bounded on either side by the hard metamorphic rocks making the upper peninsula of Michigan. The action of the atmosphere and of the acids from decaying vegetation upon the mineral having produced a partial disintegration of the gangue or rock in which it is held, the glacier scooped out deep troughs or channels in the rock thus softened. Often these depressions were only partially filled with drift, leaving more or less of the copper-bearing rock exposed as a wall on either side.

Aboriginal mining in this region had its beginning in the hammering or cutting of portions of the metal thus left visible; when the level of the gravel was reached it was cleared away to follow the wall downward. From this it was but a step to removing the loose material in order to get at the copper vein at the bottom; and soon it was discovered that whenever one of these partially filled trenches occurred, copper was to be found beneath the gravel, whether any of it could be seen on the surface or not.

When quarrying in the solid rock began it was carried on in the ordinary Indian fashion, namely, by heating the rock, pouring water on it, and breaking up the fragments thus obtained with stone hammers; perhaps using these hammers before the application of the fire, so long as

effective work in this manner was feasible or profitable. The hammers were rounded, water-worn boulders carried up from the lake shore or from the lower valleys. Modern work has shown that some excavations thus made were fully twenty feet in depth; and it is quite possible that others which have not yet been cleared out are much deeper."—Archeo. Hist. of Ohio, 711-712.

It would be impossible to estimate with any degree of correctness the amount of copper which was thus obtained from these workings. It was certainly very large, since a large amount must have been required to produce the thousands of artifacts which have been recovered in Wisconsin alone. Nor has it been possible to ascertain with degree of certainty the length of time within which this work was accomplished. This must probably always remain in doubt.

FABRICATION.

The prevalent opinion now is that all of our native copper implements were fashioned by being hammered into shape while the metal was in a cold or heated state with such rude implements as were at the command of the natives, the finishing touches being given by cutting and trimming the uneven edges with sharp flints and smoothing the surfaces by rubbing or grinding with stones. Successful experiments in reproducing the various forms of implements from the native or nodular copper by these primitive processes have been made by the late lamented Frank H. Cushing and other leading archeologists. Mr. Gerard Fowke is authority for the following statement:

"So far as its working qualities are concerned, copper at ordinary temperature is much more malleable than pure soft iron; and it is much more easily worked into shape when at a red heat than when cold. If hammered cold it must be annealed occasionally, otherwise it becomes brittle. It is somewhat hardened by pounding, which will account for the harder edge of celts and other aboriginal specimens beaten out thin."—Archeo. Hist. of Ohio, 712.

The theory that any of these implements may have been cast is now almost universally discarded by archeologists. There is no evidence to show that our local aborigines possessed any knowledge of the working of this metal beyond that of its malleability.

"Even if copper could be melted in an open fire, which is very doubtful, it must not be overlooked that Indians had no materials of which to make crucibles or moulds capable of withstanding such heat. Admitting they had clay receptacles which would have answered these purposes, there is no way of handling the molten metal with safety."—Archeo. Hist. of Ohio, 713.

While it is quite probable that many of the copper implements were fabricated in the vicinity of the workings it is now perfectly clear that fragments of the native ore were carried away to be cut up and fashioned into implements elsewhere. The possession of such masses by the aborigines were noted by the early explorers and missionaries. On the extensive village sites at Two Rivers, Sheboygan, Green Lake and elsewhere have been obtained numerous small chips, scales and fragments of copper, plainly indicating that the manufacture of implements was carried on there. Elsewhere in the state have been found lumps of the metal exhibiting tool marks, and other indications of working.

Mr. Gerard Fowke voices the opinion of all leading archeologists and students in the following paragraph:

"The second mistake consists in a belief that Mound Builders were acquainted with some means, at present a 'lost art,' of hardening copper until it would compare favorably with high-grade steel. Not infrequently the claim is advanced that even a file will make no impression upon a knife or hatchet in some collector's private cabinet. It is only necessary to apply the test to be convinced of the fallacy. No such 'secret' was ever known. Despite all assertions to the contrary, not one piece of unalloyed copper has ever been found, in any part of the world, having a greater degree of hardness than can be produced by simple hammering."—Archeo. Hist. of Ohio, p. 705.

DISTRIBUTION.

To properly discuss this phase of the subject would require more pages than the author has at his command. The local student must therefore content himself with such information as can be condensed and crowded into a comparatively limited space.

Implements and ornaments of native copper are distributed commonly or sparingly throughout a large portion of the eastern half of the United States and in some states west of the Mississippi River. Outside of our own state, numbers of them have been recovered in Minnesota, Iowa, Illinois, Ohio and West Virginia, and also from the mounds and stone graves in the states of Kentucky, Tennessee, North Carolina, and Georgia. Mr. Clarence B. Moore, whose explorations have been very extensive, has reported their existence in the mounds of Florida and elsewhere in the extreme south. From five mounds on the St. Johns river in Florida he obtained ornaments of sheet copper with repoussé designs, beads of sheet copper, beads of wood, shell and limestone copper coated, copper effigies of the turtle and the serpent, and piercing imple-

ments of copper. Dr. C. C. Abbott long ago recorded the existence of copper implements in the Delaware Valley.

As a result of his long continued and careful researches, Rev. W. M. Beauchamp, the distinguished archeologist, has very recently issued under the auspices of the University of the State of New York, at Albany, two finely illustrated bulletins, one descriptive of the metallic implements and the other of the metallic ornaments of the New York Indians.

These splendid monographs should be added to the library of every Wisconsin student.

Prof. G. H. Perkins states that the objects of this metal are far more numerous in England than those of bone or shell. They are found not only on the surface, but in the graves as well. They are similar in form to Wisconsin artifacts and Prof. Perkins thinks it probable that all, so far as may be judged, are from the Lake Superior district. Dr. David Boyle and others have called our attention to the presence of native copper implements in both Eastern and Western Canada.

There is no longer any doubt but that much of this metal was thus distributed, either in the unworked state or as finished artifacts in the course of the trades or regular exchanges known to have been carried on between the aborigines of other sections and those holding possession of the copper district.

The local distribution of copper artifacts is one to which we trust that Wisconsin students will give greater attention, for while they have been found to occur almost everywhere throughout the state, it is known that there are certain regions in which they are far more plentiful than in others.

We have not as yet been able to give to this matter the careful consideration it deserves. A provisional description of the territory in which the greatest number of such artifacts have been recovered up to the present time may be given as extending from about the middle of Milwaukee County, northward along the west shore of Lake Michigan to Door County, thence westward to the Wisconsin River or slightly beyond, thence southward along this stream to Dane County and eastward to Milwaukee County, the starting point. Embraced within this territory are the extensive lake shore village sites, from which thousands of articles have already been recovered, and certain well known sites in Green Lake and adjoining counties, the Rush Lake and similarly productive regions. There is no doubt but that the amount of copper implements

obtained from the mounds and graves of our state is very small when compared with the quantity obtained from the village sites and fields. We should recommend, however, that some local student begin the collection of data with a view to determining the exact amount. Such an investigation, if carefully conducted, can not but prove of great value to us in this and other lines of local archeological research.

CLASSES AND FUNCTIONS.

The native copper artifacts of Wisconsin admit of separation into two principal classes, designated as implements and ornaments. Of these the former class are by far the more numerous. Mr. Henry P. Hamilton of Two Rivers, who, by reason of his long experience as a student and collector, is in a position to know, estimates that articles of utility constitute fully 95 percent of the copper artifacts found in Wisconsin.

It is but natural that on account of its proximity to the source of supply we should find in our own state not only a more bountiful supply of implements, but a greater range of classes, types and varieties as well. The correctness of this conclusion is proven beyond doubt. In the matter of the number and artistic excellence of its copper ornaments and objects of a ceremonial nature, Wisconsin, while possessing some types apparently peculiar to itself, can not properly be said to lead. The artistically cut or embossed sheet copper disks, gorgets and plates, the cones, tubes, spool-shaped objects and copper sheathed stone and wooden ornaments of Ohio, Illinois and the South are here conspicuous by their almost total absence.

It is not to be expected that any one Wisconsin collection will be found to contain all classes and types of the implements described in this bulletin.

An examination of almost any local copper cabinet, however small, is almost certain to reveal the presence of some object that is original or peculiar; or some variation of a well known type not elsewhere to be seen. The difficulties attending the making of a proper classification are therefore apparent. Especially among the objects classed as arrow and spearpoints the number of well established types, of varieties and infrequent forms, are particularly numerous. In a somewhat lesser degree this is also true of other classes of implements.

Among the former especially, there appears to be a gradual development from the primitive leaf-shaped, through the stemmed, to the numerous and well executed socketed forms. In this case the important element in the transition from one form to another is in the manner of hafting. A gradual transition in some instances from well marked types of one class into those of another may also be noted. The uses of many of these implements because of their close resemblance to modern articles are readily understood. The precise function of others is not so readily ascertained. The student may assist us by giving attention to these.

An examination of a large series of any of these should convince us that each had its special function, although probably also employed for such other exigencies as might arise.

In the following pages the author has endeavored to describe and illustrate the various classes of local copper implements and to present such information and suggestions concerning their workmanship, purposes, frequency and distribution as is obtainable at the present time. The illustrations employed are selected from a very large number of drawings in his possession. They are typical of the various classes of implements described. It is to be regretted that a larger series of each can not be shown. To illustrate all would be impracticable.

CLASSIFICATION.

AXES OR HATCHETS.

(SEE PLATE 1.)

For these the present names have been retained, the term "celts," still applied to them by some authors, giving no ready clue to their function.

There is no mistaking the use of such artifacts. They are well adapted alike for peaceful as well as warlike purposes. In the hands of the Wisconsin aborigines they were undoubtedly eminently serviceable implements, superseding the clumsy stone axe or hatchet, and possibly being in their turn laid aside for the more efficient iron axe of the trader.

Employed in warfare or the chase they would be terrible weapons. As tools they were probably especially useful in the felling of trees, the shaping of log canoes, the erection of dwellings, barricades and stockades.

They may have been employed in connection with or without

fire. It has been suggested that some of the smaller implements may have served as wedges.

A large number of these implements have already been recovered from Wisconsin soil and are today represented by one or more examples in nearly every local copper collection. They vary in weight from half a pound to three pounds, rarely more, and in size from three to ten inches. So far as known no hafted copper axe has yet been recovered. Probably the usual and most satisfactory method of hafting one of these implements was to insert it between the parts of a cleft stick, to which it was afterwards secured by winding the stick above and below it with strips of hide, a number of turns being also taken around or across it. There are at least four well established types of these implements, which may be briefly characterized as follows:

1. Those which are oblong or nearly oblong in outline, having the edges parallel or nearly so, and whose breadth is sufficient to exclude them from the chisel class. Specimens known to the author range from four or less up to seven inches in length. They are generally of nearly uniform thickness throughout. These axes are well represented in local cabinets. (Fig. 1.)

2. Those with straight, tapering edges. They are widest at the cutting edge and become gradually narrower towards the head, which is either flattened, rounded or roundly pointed. The cutting edge is straight or curved. This is undoubtedly the most common type of copper axe. The largest example known is ten inches in length and the smallest only two inches. The large specimen comes from Milwaukee County and is now in the Milwaukee Museum collections. (Fig. 2.)

3. A third and less frequent type has the edges curving equally from the cutting edge to the head. Most examples are quite thin, broad and flat. The head is square and sometimes nearly as broad as the cutting edge. By reason of their broad, expanding cutting edges some of these axes may be appropriately described as bell-shaped. Fine specimens of this type are to be seen in the W. H. Elkey and Milwaukee Museum collections.

4. A peculiar and rather rare type; resembles the second described, with the exception that the margin at the edges is slightly but distinctly elevated, thus giving a slightly depressed or concave surface in the center and from end to end on one or both broad faces of the axe. In some examples this margin is fully one-half inch in width at or near the middle. A curious feature of this

uncommon type is that the cutting edge sometimes curves slightly inward. What the special function of these axes, if any, may have been, is beyond conjecture. Such implements are to be seen in the H. P. Hamilton, F. M. Benedict, Field Museum, J. G. Pickett, W. H. Elkey and several other cabinets. They range from five to as much as seven inches in length. (Fig. 3.)

Some peculiar forms of axes are also known to exist. One of these, a rather rude specimen in the Hamilton collection, is irregularly oval in outline, broadest at the head and slightly notched at the margin. It is about one and a fourth inches in thickness and is said to weigh five pounds. The locality is Horicon, Wis. So far as can be learned no double-bitted copper axe has yet been found.

CHISELS.

(PLATE 2.)

The aboriginal copper implements known as chisels are of quite as frequent occurrence in local cabinets as the implements of the foregoing class. In the Hamilton collection there is to be seen a very fine series of at least a dozen examples, ranging in size from five to fifteen inches and in weight from five ounces to five and three-fourths pounds. An equally fine series is in the Field Columbian Museum collections.

Of the office of a majority of these fine implements there can be no doubt. It probably included the hollowing out of wooden canoes, troughs and vessels and similar functions. Their employment in connection with the mining operations of the Indians has already been shown. Some specimens exhibit upon their heads the flattening which would result from their being used in conjunction with a wooden mallet, club, stone, or other weighty object. One specimen in the Milwaukee Museum has its head bent over, probably during such use. Others show no such marks and were probably employed without such agencies. Rev. W. M. Beauchamp informs us that a large proportion of the copper articles found in New York State are of the celt (axe) or chisel form. Prof. G. H. Perkins has described similar implements from New England. At least three distinct types of these implements are known to occur in Wisconsin:

1. The first of these is broadest at the cutting edge. The edges taper gradually upward from the cutting edge to a pointed, rounded or squared head. They are usually thickest at or below the middle, the flat or convex surface sloping toward the narrow

extremity. Some of these have the upper surface convex and the lower surface flat. The broad or narrow sides may be either convex or flat. Fine implements of this form are to be seen in the W. H. Elkey, J. G. Pickett, H. P. Hamilton, State Historical Society and other local collections. A few approach fourteen inches in length. (Fig. 4.)

2. A second type is of nearly uniform width throughout, with straight, parallel edges. A specimen in the S. D. Mitchell collection at Ripon is said to have a cutting edge at either extremity. Implements of this type are also to be seen in some of the foregoing collections. They range from about five to ten or more inches in length, and from one and one-half to two inches in width. Two fine specimens of this type, one a Wisconsin and the other a Minnesota specimen, are to be seen in the W. H. Vogel collection at Milwaukee. (Fig. 5.)

3. A third and less frequent type is characterized by a more or less prominent median ridge, which traverses its upper surface from within an inch or more of the cutting edge to the opposite extremity. From this ridge the surface bevels off evenly on either side toward the edge. The lower surface is usually flat, thus giving a somewhat triangular section. The edges are generally parallel for at least three-quarters of the distance back from the cutting edge, whence they taper or curve gradually to the rounded head. A few are of nearly uniform width throughout, with an angular or squared head. At least one of these implements has its upper extremity abruptly narrowed and prolonged into a short tang, as if it were intended to be set into a wooden handle. It is in the Milwaukee Museum collections. A few are curved or bowed from extremity to extremity. A specimen described by Dr. Lapham has an expanded, curved cutting edge. One of the largest of these ridged chisels is fourteen and three-fourths inches in length. It is in the H. P. Hamilton cabinet and comes from the town of Oshkosh, Winnebago County. (Fig. 6.)

Some of these implements bear a general resemblance to the so-called triangular stone adzes, after which it has been suggested they may have been patterned. So far as can be learned, no iron or other metal implements approximating them have been found.

SPUDS.

(PLATE 3.)

In Northwestern Wisconsin and possibly elsewhere in the western part of the state, have been obtained a limited number of copper implements bearing a close resemblance in form to some of the so-called stone spuds; after which they were probably patterned. They are rather broad, flat implements, of nearly uniform thickness throughout and from six to eight or more inches in length. The broad, narrow blades are semi-circular or crescentic in outline. From them the handle tapers backward to a squared or slightly rounded extremity. The narrow sides are flattened. The author is indebted to Prof. T. H. Lewis for sketches and information in regard to some of these, which were obtained by him at Lake Chetek, Barron County, Wis., at St. Paul, Minn., and at Ontonagon, Mich. (Fig. 7.)

The conclusion, probably correct, in regard to these implements is that they were employed, like the stone implements which they resemble, in stripping bark from trees and for similar purposes. Steel or iron implements of similar pattern are still in use on the Wisconsin Indian reservations.

GOUGES.

(PLATE 3.)

These implements are closely allied to the chisels, from which they are distinguished by the presence on their lower surface of a concavity sometimes reaching quite to the middle. They are adapted for working out rounded or oval holes or concavities, and in this state at least, are generally considered to have been wood-working tools. Elsewhere they were probably also employed like the more common stone gouges in quarrying and working steatite, catlinite and similar deposits useful to the aborigines. Such implements are to be seen in the H. P. Hamilton, Field Museum and one or two other collections.

Several specimens known to the author approach seven inches in length.

Prof. Perkins mentions copper gouges as being rare in New England, where stone gouges are a common and characteristic implement. Neither stone nor metal gouges are of particularly frequent occurrence in Wisconsin. (Fig. 8.)

ADZES.

(SEE FRONTISPIECE AND PLATE 4.)

These implements have also been called spuds, winged chisels and hoes. Of these the term "spud," though unsatisfactory, appears to be that in most general use at the present time. This name, as has already been shown, is likewise applied to a rather numerous class of stone implements of quite different pattern and application. This has already been the cause of considerable confusion to the student and a change in name is therefore advisable for this, if for no other reason. Divers opinions and theories as to the possible function of these implements have been expressed. Some have placed themselves on record as believing that they were ice-cutting tools or agricultural implements.

With the knowledge we now possess in regard to the Indians' mode of life and requirements there is no reason why we should now read any such functions into these highly specialized implements. There were much simpler methods and devices at hand for attaining both of these ends. An examination of a large series of them suggests the correctness of the now prevailing opin-

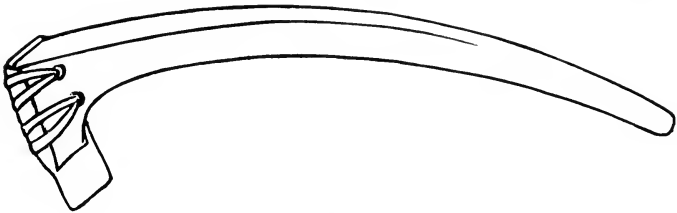


Fig. A.

ion that they were employed in shaping wooden canoes and executing tasks of a like nature. Properly hafted, their general adaptability to such service is plain. A suggestion as to the manner of hafting is given in the accompanying cut (Fig. A).

This belief is strengthened by the fact that adzes of wrought iron and of steel, resembling them, but somewhat modified to meet additional present day needs, are still employed by some of the Wisconsin Reservation Indians for similar purposes. A somewhat similar tool is also employed by modern woodworkers. Some of the slender, narrow, flat backed forms, of which a few have been recovered, if fitted with a short, straight wooden handle,

would serve very well as chisels. Classed among the bronze palstaves of early European barbarians are to be seen flanged implements in form somewhat closely approximating these adzes.

1. There are at least two well marked types of these implements. The first of these is generally nearly square, less frequently oblong in outline. The flanges of the implement are turned inward to form a socket, at the base of which is a hip or shoulder, against which the tip of the wooden handle abutted. The blade is elevated above the socket and is provided with a straight or slightly curved cutting edge. The back of the implement opposite the socket is flat or transversely convex, sloping or curving downward to the cutting edge. This is certainly the most common type and has been obtained in many parts of Wisconsin, in Northern Michigan and Minnesota. Some examples have also been collected in Ohio, Illinois and Iowa. The average specimen appears to be about three inches in length by two and a half inches in width. The smallest known is only one and a fourth inches and the largest six and a fourth inches in length. Fine series of these implements are to be seen in the Field Museum, State Historical Society, Milwaukee Museum, H. P. Hamilton, W. H. Elkey and other collections. Outlines of several which were formerly in the W. H. Ellsworth cabinet are shown in our plates. In the Wyman collection in the Field Museum is an unusually large and broad specimen. The weight of this type varies from a few ounces to one and a half or more pounds. (Figs. 9-11.)

2. A second type differs from the preceding mainly in the fact that the extremity of the socket is angular in outline and that the flanges are bent straight upward or inward, instead of curved. The hip at the base of the socket is also often absent. The back is generally flat or transversely rounded and in some specimens traversed from the top to the cutting edge by a pronounced median ridge. A specimen in the Milwaukee Museum collection has the middle of its back ornamented with a double row of zigzag incisions. Its blade is also ornamented. (See Frontispiece.)

These implements are as a class larger than the foregoing. Of a dozen or more examples which the writer has examined in the Hamilton and other local cabinets none are below five inches in length and two and a fourth inches in breadth, the largest known being six inches in length and three inches in breadth. The weight of these ranges from twelve ounces to one and a half pounds.

As may be expected there are also a small number of peculiar forms, each usually represented by a single example. They vary in the length and breadth of the flanges and the shape of the blade. When a sufficient number of these shall have been recovered it may be advisable to expand the present classification to include them. The author regrets that he has not the space to devote to the illustration of some of these, which are to be seen in the Hamilton, Milwaukee Museum and other Wisconsin and Minnesota collections. Many of the implements included in the adze class are admirable for their symmetry and perfection.

Since the above was printed Mr. Walter Wyman of Chicago, the well known collector, has secured in the Lake Superior district, where a large number of these implements have been collected, an example having a portion of the wooden helve still fitted into the socket. He is convinced beyond a doubt that these implements are adzes. Mr. John T. Reeder of Calumet, Mich., who has had an especially excellent opportunity to study these implements, appears to be of the same opinion.

SPILES.

In the Milwaukee Public Museum collections is a single example of this peculiar class of implements. A side view of this specimen shows it to be curved or bowed from end to end. It is semi-cylindric or semi-tubular in longitudinal section (hollowed from end to end), about seven inches in length, two inches in breadth and of nearly uniform thickness throughout. The ends are sufficiently blunted to preclude the possibility of its having been employed as a gouge. We regret that we are unable to give an illustration of this specimen in our plates. The existence of but one other specimen has been reported.

The opinion frequently expressed that these implements are probably sap spiles and that they were inserted or driven into the trunks of trees and served to convey the sap from the tree to the trough or vessel, appears plausible.

In historic times at least, the making of maple sugar by the Indians appears to have been considerable of an industry in certain parts of Eastern Wisconsin. In extracting the sap a wooden spile of a shape somewhat similar to these was employed. Elsewhere in our country stone implements have been found which it has been conjectured were used for a similar purpose. It is

possible that, owing to their infrequency, these copper artifacts may be only the result of an experiment in that direction. The finding of others may solve the question of their application. Mr. H. P. Hamilton has called our attention to a small number of implements in his collection which may be related to those described. A typical example is four inches in length, half an inch in thickness at the middle and drawn to a rounded point at either end. On one face the edges are bent or battered inward, thus giving a decided depression for their entire length.

SPATULAS.

(PLATE 5.)

Of the implements known as spatulas only a small number of examples have as yet been recovered from Wisconsin aboriginal village sites and elsewhere. The blade of these artifacts is usually broad and thin and irregularly rounded or somewhat triangular in outline. The handle is short, seldom more than three-eighths of an inch in thickness, and nearly square or somewhat rectangular in section. Such implements are to be seen in the R. Kuehne, W. H. Elkey, F. M. Caldwell, W. H. Ellsworth and Milwaukee Museum collections. We should be pleased to learn of the existence of others. (Figs. 12-15.)

Rev. W. H. Beauchamp has described and figured both an iron and a copper implement of this class from New York State. Others have suggested the possible employment of these implements in the making of aboriginal earthenware, the removing of the flesh from skins and bones, and of the scales from fish. They are but poorly adapted for use as spoons or ladles.

The small number of specimens at hand makes it undesirable to venture an opinion of their utility at present. With further research and study there is a possibility that their true purpose may yet be made manifest.

KNIVES.

(PLATES 5 AND 6.)

In point of numbers these easily rank second to the numerous class of socketed spear points. They have been recovered in considerable numbers in many parts of the state. At least four distinct types and some intermediate and peculiar forms may be recognized. The close resemblance of some of these to the white man's knife has frequently been remarked upon.



Fig B.

1. By far the most common of these is one with a usually straight back and oblique curved or straight cutting edge. It is provided with a generally short, tapering, pointed tang, suitable for insertion into a wooden, bone or horn handle. Such knives, ranging in size from diminutive specimens one inch in length up to twelve inches, are not uncommon in local collections.

An exceptionally large and fine example in the cabinet of Mr. J. G. Pickett measures seventeen and a half inches in length and weighs eleven ounces. The blade is one and a half inches in breadth at its base and the tang is six inches in length. A few have the cutting edge of the blade beveled. In the R. Kuehne collection is a small hammered native silver knife of this type which was obtained from the Sheboygan village sites. A small number of these knives have their blades ornamented with incisions and indentations. These are to be seen in the H. George Schuette, W. H. Elkey and H. P. Hamilton collections. Another was formerly in the Ellsworth cabinet. A cut of it is given herewith. (Fig. B.) It was obtained at Cato, Manitowoc County. No two of these are marked exactly alike. (Figs. 16-19.)

2. A second type is distinguished from the preceding by the greater breadth of its broad curved blade, which terminates in a broadly rounded point. In this type the center of the blade on one or both sides is frequently traversed from tang to point by a pronounced ridge. The broad, flat tang also terminates in a blunt point. Such implements are to be seen in the W. H. Ellsworth, Field Columbian Museum, Milwaukee Museum, F. M. Benedict, W. H. Elkey, J. G. Pickett, H. P. Hamilton and other collections. These range from six to twelve and three-fourths inches in length and from one and a fourth to two and an eighth inches in the extreme breadth of the blade. (Fig. 20.)

3. A third type, locally known as the "handed copper knife," differs from the preceding styles mainly in having the tang so uniformly broad as to obviate the necessity of a wooden

or other handle. Only a small number of these are known. A specimen now before the author is seven inches in length. The handle is two and a half inches in length and of a nearly uniform breadth of three-fourths of an inch. It comes from Pardeeville, Columbia county, and is in the W. H. Elkey collection. Another was in the Ellsworth cabinet. A knife in the J. T. Reeder collection, at Calumet, Mich., has a broad copper ferule still encircling its tang. The tip of the tang is bent over, meeting the ferule. (Fig. 22.)

4. Socketed knives. These somewhat resemble the type first described in the shape of their blades. They are provided with a socket similar to that of the socketed spears. Only a small number of these have been found and are to be seen in the H. P. Hamilton, A. and J. Gerend, R. Kuehne, H. Geo. Schuette and other Wisconsin collections. They range from two to nine inches in size. (Fig. 21.)

The author would be pleased to have the existence of others reported to the Society.

The cutting edge is usually along the right, rarely along the left side of the blade. A specimen in the H. R. Denison collection at Milwaukee has its blade ornamented with indentations. A small number of peculiar forms of knives are to be seen in local cabinets. These we shall endeavor to describe in a future pamphlet.

SPEAR AND ARROW POINTS.

1. Leaf-shaped points (Plate 7). These are not as numerous as are some of the types and varieties to follow, but still sufficiently so to assure the presence of one or more specimens in most local cabinets. Particularly fine series of these were formerly to be seen in the W. H. Ellsworth and L. Schneider collections. Others are to be seen in the J. G. Pickett, S. D. Mitchell, H. P. Hamilton, Field Museum and Erskine Estate collections. As may be expected, they vary considerably in form and size, measuring from two to six or more inches in length. The average size appears to be about four inches. Some are oval, others elliptical, lanceolate or almond-shaped, the elliptical forms appearing to predominate. (Fig. 23.)

A small number of lanceolate forms in the Hamilton collection have the added feature of a median ridge or elevation traversing either side of the blade from end to end. These range from two and three-fourths to nine inches in length. It has been considered

likely that some of these were provided with handles and employed as knives, or as blades for wooden warclubs, as are still employed by certain tribes of western Indians. There is, unfortunately for the latter opinion, no evidence of the employment of such weapons by Wisconsin aborigines.

2. Stemmed, flat points (Plate 7). In view of the number already recovered from Wisconsin soil, this may, we believe, be regarded as a fairly common form. In the Hamilton collection there are thirty, in the Milwaukee Museum twenty-five, and in the W. H. Ellsworth collection there were sixteen examples. A large number of others are to be seen in the Porter, Le Counte, Mitchell, Perkins, Schuette, Wolff, Berry, Elkey, Drew, Mueller and Field Museum collections. These points are generally quite flat and of nearly uniform thickness throughout. The stem is of uniform breadth or tapers slightly toward its extremity. In the former form it sometimes expands at the base. The base is sometimes indented. In the Field Museum there is a fine specimen of this variety from Montello in Marquette County. It is nearly seven inches in length.

The blade varies considerably in shape and size. The smallest example known to us is one and three-fourths and the largest about eight inches in length. The average size appears to be about three inches. A very small number have the face of the blade ornamented with indentations, usually arranged in two parallel rows. (Figs. 24-25.)

3. Ridged points (Plate 7). These and several of the succeeding forms are, strictly speaking, only varieties of the preceding type. In the present instance they are distinguished by the presence of a median ridge which traverses both faces of the point, usually from tip to tip. This is not a frequent form. The largest specimen known to the author measures six inches in length. It is in the H. P. Hamilton cabinet and was found at Two Rivers. Prof. T. H. Lewis obtained a specimen from a mound in Pepin County. It is in the Macalester Museum. Others are in the Field and Milwaukee Museum collections. (Fig. 26.)

4. Bevelled points (Plate 7). Of these also only a small number have been recovered. They are recognized by a more or less distinct bevel of generally uniform width which extends along the edges on both faces of the blade. Sometimes this bevel is

nearly one-half inch in breadth. The shape of the blade varies considerably. In a few examples this bevelled surface is quite broad. Specimens of this form range from two and a half to five inches in size. Examples are to be seen in the Field Museum, J. G. Picketts, H. P. Hamilton, C. E. Wood, P. O. Griste and other cabinets. (Fig. 27.)

5. Eyed points (Plate 7). The base of the stem in this rare form is provided with an eye, opening outward and probably intended for the reception of a rivet. Owing to poor drawing this feature is not clearly shown in our plate. Otherwise these points do not differ from the flat, stemmed types. Only a very small number of these have been found. The student may be able to assist us in locating others. One of these formerly in the W. H. Ellsworth collection came from Dundee, Fond du Lac County. It measured five and a half inches in length. Others were in the F. S. Perkins collection. (Fig. 28.)

6. Notched points (Plate 7). These bear a close resemblance to a numerous class of flint arrow and spearpoints, after which they are probably patterned. No two of them are exactly alike. They differ from each other in the shape of the blade and shape and position of the notch. A few are traversed by a median ridge. Some have indented bases. They vary in size from less than two and up to six inches in length. Such points are of infrequent occurrence and are to be seen in the Milwaukee Museum, Field Museum, Elkey, Kuehne, Schuette, L. Schilder and O. L. Hollister collections. (Fig. 29.)

7. Toothed points (Plate 8). These are rather remarkable and interesting implements and are distinguished from all others by the peculiar angular teething or serration of the edges of the stem, the purpose of which is evidently to facilitate the fastening of the point to the wooden shaft or handle into which it was inserted by means of sinew or strips of skin or fiber. A greater solidity of attachment was thus secured. The number of opposite notches on the stem vary in number in different examples, from two to as many as six or seven. The usual number appears to be two or three. Most examples of this type are long and narrow. A few, however, are short and broad, and elliptical in outline. The largest known example of this form is about nine and a half inches and the smallest two and a half inches in length.

The average size appears to be about three and a half inches. In many specimens a central ridge or elevation extends along either side from extremity to extremity, or only from the base of the stem to the point of the blade.

In both the F. M. Benedict and H. P. Hamilton collections are large and fine series of these points. The Benedict series of nine includes specimens ranging in size from two and a half to seven and a half inches. Upon a specimen in the Hamilton collection indications of cloth wrappings are to be seen. Others are in the E. C. Perkins, A. Mills, J. A. Sheridan, Schuette, Field Museum, Le Counte and other local cabinets. In its distribution this type appears to be rather confined to the Winnebago Lake, Fox and Wolf River districts in Northeastern Wisconsin. A small number of flint spear points of somewhat similar design have been found in about the same district. Others have been described from Maine and elsewhere. Slate points of very similar form occur in New England, where they are regarded as knives. A small number of copper points of this pattern are also reported to have been found there. (Figs. 30 and 31.)

8. Spatula-shaped points (Plate 8). These peculiar points have obtained their name from the resemblance which the typical form bears to a chemist's spatula. They are also locally known as "rat-tailed points." In the most frequent form the blade is rather flat and somewhat elliptical in outline and generally not exceeding three inches in length, being usually less than one-half the total length of the implement. A small number have the blade somewhat larger and of an elliptical, lanceolate or very rarely elongated lozenge shape. The usually long, tapering stem is generally circular or nearly circular in section and thus well adapted for insertion into a perforation or long pointed socket in a wooden shaft or handle. (Figs. 32-34.)

The author has examined several specimens which have near the tips of their pointed stems a succession of rudely cut opposite notches, probably intended to prevent the easy withdrawal of the point from the shaft. Such a specimen is to be seen in the Milwaukee Museum collections. A very small number have the blade and stem traversed by a median ridge. Another specimen has a lanceolate blade with a roughly serrated edge. The smallest specimen of this type known to the author is four inches and the largest nine

and a half inches in length. A large number attain the size of eight inches. Of the distribution of this peculiar type in Wisconsin archeological districts, little may be said at present.

It has heretofore been regarded as a rare form, but a careful examination of Wisconsin collections indicates that it is of more common occurrence than has previously been supposed. Fine specimens are to be seen in the Hamilton, Elkey, Porter, Griste, Schuette, Pickett, Wolff, Reeder, Schneider, Mitchell, Le Counte and Field Museum collections. A fine series was in the Ellsworth collection. Rev. Beauchamp has noted the occurrence of a limited number of specimens in New York. The occurrence of a small number of iron points of similar shape is known.

9. Short stemmed points (Plate 9). The typical form is distinguished from others by the frequent extreme shortness of the tapering, pointed cylindrical or nearly cylindrical stem, as compared to the length and width of the tapering triangular blade, being in this respect the reverse of the average spatula-shaped point. Specimens in which the blade and stem are more nearly equal or equal, are of rare occurrence. The average specimen is about six inches in length. The largest example of which we have any knowledge is twelve inches in length, the stem measuring only about three inches. Though represented by one or more examples in most local cabinets, this is not yet regarded as a very frequent form. Fine specimens are to be seen in P. O. Griste, Field Museum Elkey, Hamilton, Benedict and other local cabinets. A cache of four of these singular points found at Chilton, Calumet County, is to be seen in the Milwaukee Museum collections. Rev. W. H. Beauchamp has described similar spearpoints from New York. (Figs. 35 and 36.)

10. Barbed or pronged points (Plate 9). This type of copper point is of rather infrequent occurrence in Wisconsin collections. The blade is usually of an oval or pointed oval shape. A few specimens have long narrow blades. Situated just below its rounded base on either side is a single barb or prong. These prongs are sharply or obtusely pointed and as a general thing do not extend out to a point in line with the edge of the base of the blade, and rarely beyond. The stem is short, flat or cylindrical and usually tapers to a sharp point.

In some examples the blade is traversed on one or both faces by a well defined median ridge. The

prongs probably served the double purpose of barbs and of projections by means of which the point might be more firmly secured to the wooden shaft into which it was inserted. Such points are to be seen in the Hamilton, Wolff, Elkey, Field Museum and other local collections.

The smallest specimen known to the author is three inches and the largest about seven and one-half inches in length. The average size appears to be about four inches.

This interesting form of spearpoint also occurs sparingly in surrounding states and has been recorded from as far east as New York and New England, where a few specimens have been found. Our fellow students may assist us in learning more of its local distribution. (Figs. 37 and 38.)

Large iron spear points of somewhat similar form, but with the projections squared at the ends, have been found in Wisconsin. Some of these have cut or punched through the face of their blades, hearts and other devices, by which it has been accustomed to credit their manufacture to the early French.

11. Conical points (Plate 10). A very large number of these have been and are still being collected from the extensive Lake Michigan shore village sites, of which locations they appear like some other small implements, to be more or less characteristic, replacing to a large extent all other types of copper points. Some fine examples have also been obtained from similar sandy sites in counties farther inland, from the Lake Superior shore and the Lake of the Woods region in Minnesota. A few scattering examples have also been found in other locations here and there throughout the state. Fine series of these points are to be seen in the A. and J. Gerend, Hamilton, Wiesse, Kuehne, A. and W. Fessler and other lake shore collections.

These points vary in length from less than one inch up to six inches or slightly more. The majority, however, are of small size and do not exceed two inches in length. The most prevalent type is fashioned in the shape of an attenuated hollow cone of small diameter, others have the point solid for an inch or more back from the tip. Less frequently they are furnished with an open angular socket and hip like that of the ordinary socketted copper spear. In a few examples the flanges of the socket are pierced with a square or round hole, as if for the reception of a rivet or possibly for the attachment of a light line. A few

are said to have a rivet hole also at the base of the socket. None of these latter are known to the author. It has been stated that these points are occasionally found with fragments of the wooden shaft filling or extending beyond the socket. It has been suggested that these points may have been employed in the shoeing of spear butts, but this theory has never been accepted by those of our local students who have had the opportunity to study large series of them.

Their presence in numbers upon the sandy lake shore sites where the aboriginal residents appear to have depended largely upon the fishing industry for subsistence, appears to indicate their employment in such a connection. Possibly in the shooting or spearing of fish and small game. (Figs. 39-45.)

12. Rolled socketted points (Plate 10). This form is almost if not quite as common as the succeeding, from which it is mainly distinguished by the fact that the back of the blade and stem are not usually upon the same plane. The central ridge also is absent. Many examples are provided with a rivet-hole (very rarely with two, one above the other) within the socket near the base of the stem. Specimens with a small copper rivet or nail still in place in the socket are of not infrequent occurrence in local collections.

At least two well defined forms of these points may be recognized:

1. The first of these is provided with a short, broad oval or almond-shaped blade. The stem and socket in this form is usually broadest at the base, tapering or narrowing toward the blade. The average length of these is about four inches. A large specimen measures seven inches in length, and two inches in breadth near the base of the blade. It is in the J. G. Pickett cabinet, and was found at Ripon, Fond du Lac County. Specimens of this type may be seen in the Hamilton, Schuette, Le Counte, Wiesse, Mitchell, Elkey and Field and Milwaukee Museum collections. In the Ellsworth cabinet there were several fine examples. (Fig. 46.)

2. The second form is furnished with a long narrow lanceolate blade, often twice or more than twice as long as the stem. The socket and stem rarely taper upward and are of more nearly equal width throughout. In both this and the preceding form the flanges of the socket are rolled inward, in some instances

nearly meeting. The average length of these points appears to be about five inches. The largest specimen known to the author measures eleven and one-half inches. Such specimens are to be seen in nearly every Wisconsin cabinet. (Figs. 47-49.)

In a very limited number of the smaller specimens the face of the blade, rarely the back, is ornamented with indentations. These are represented by specimens in the Hamilton, Pickett, Elkey, Caldwell, Milwaukee, Field and Andover (Mass.) Museum collections. (Fig. 47.) The edges of the blade are also sometimes bevelled. Some of these are to be seen in the Elkey and Field Museum collections.

Among the smaller specimens are to be seen a variety in which the length of the stem equals or exceeds that of the blade. In some specimens the socket has the appearance of having been formed by excavating the stem, the narrow flanges being continuous with the blade instead of cut and turned inward as in the ordinary form. A small number of iron socketted spear points not differing greatly from any of these have been found in Wisconsin.

13. Ridged socketted points (Plates 10 & 11). If we except from consideration the very numerous small awls, fish-hooks and cylindrical points, we may truthfully state that this is by far the most common type of copper implement occurring in Wisconsin.

As nearly as can be ascertained some thousands of these points have been collected from many sections of the state and probably as many or an even greater number are yet to be recovered from the soil.

They are represented in greater or less numbers in every Wisconsin and many outside copper collections.

This type and its varieties are too well and widely known to require much of a description. They are frequently symmetrically and beautifully wrought, indicating a degree of skill on the part of their aboriginal makers that is unsurpassed. A typical example is illustrated in our Figure 51. The blade varies considerably in length and breadth. The stem is provided with flanges which are bent straight upward or inward, thus forming an angular socket for the reception of the wooden shaft. Some points with fragments of this shaft still in place have been found. This form is rarely if ever provided with a

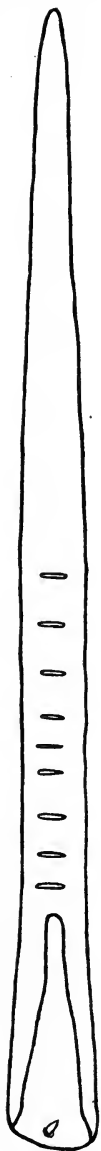


Fig. C.

rivet hole. In most examples there is a dip or shoulder in the socket at the connection of the stem and blade, against which the head of the wooden shaft abutted. A distinctive feature of these points is the pronounced central ridge which traverses the back of the implement from end to end. It is this feature which has gained for this style of point the local name of "bayonet-backed spear." The tip of the stem is also usually angularly pointed. A small number of these points have the upper surface of their blades variously ornamented with indentations variously arranged in double rows or lines. This type of point has been found as far south as the Gulf, as far east as New England, westward to the Missouri and northward into Canada.

The largest example known to have been found in Wisconsin measures thirteen inches in length. It is in the E. C. Perkins collection. The average size is between three and five inches.

14. Peculiar points. In the H. P. Hamilton and Milwaukee Museum collections are several spearpoints of curious form not included under any of the foregoing descriptions or represented, so far as can be learned, in other Wisconsin cabinets.

One of these in the Hamilton collection is illustrated in the accompanying cut (Fig. C). It is seven and one-quarter inches in length and comes from Two Rivers, Manitowoc County. Its blade is ornamented with a series of nine indentations.

In the Milwaukee Museum collection is a series of three peculiar socketted spearpoints of an average length of about eight and one-half inches. The blade of each of these is very long and narrow, with straight edges, and terminates in an acute point. The stem is very short and narrow in comparison and broadens into a short socket at its base. One specimen has the middle of its blade, from near the base toward the middle, ornamented with a continuous zig-zag indentation. Another has its blade marked with a series of dots arranged in triangular form. Two of these points come from Fond du

Lac County, and the other (formerly in the C. L. Mann collection) from the township of Rhine, in Sheboygan County.

HARPOON POINTS.

(PLATE 11.)

The purpose of these implements is too plain to make any explanation necessary. Four distinct types of harpoon points, none of which are as yet known to be of other than very infrequent occurrence, have been obtained in Wisconsin. What special application any of these several patterns may have had is not yet clear. The following is a brief description of them:

1. The first are short, flattish implements, seldom exceeding two and a half inches in length. One edge of these implements is either straight or presents a continuous curve from extremity to extremity. The other edge is curved or straight from the point downward to about opposite the middle of the implement, where it terminates in a barb. From thence it narrows to the other extremity, thus forming a stem. Occasionally this is notched on either side near its base. A small number of these points have been recovered from the Lake Michigan shore village sites. (Figs. 54 and 55.)

2. A second and less frequent form is cylindrical in section and tapers to a sharp point at each extremity. Removed from one extremity by several inches, more or less, is a stout and very pronounced barb. All are of large size. A fine specimen formerly in the W. H. Ellsworth collection measured ten and three-fourths inches in length and about one-half inch in diameter at the middle. (Fig. 56.) Others are to be seen in the Elkey and Hamilton cabinets. Mr. Clarence B. Moore has figured and described a large and fine example obtained by him in Florida.

Iron harpoons of similar form, but frequently possessing from two to three barbs, sometimes alternating on opposite sides of the implement, are said to be still in use on the Northern Wisconsin Indian reservations for spearing large fish.

3. A stout, curious but closely allied form is to be seen in the Milwaukee Museum collections. This implement is somewhat triangular in section, about eight and a half inches in length and about three-fourths of an inch in breadth at the middle. The

ends taper to a blunted point. The thinner edge of the implement is furnished with four stout, broad barbs, separated from each other by a distance of about one and a half inches. (Fig. 57.)

4. A fourth type, the so-called "socketed harpoon point," has one edge of its blade prolonged into a barb at the base. This barb may be on either the right or left side. Otherwise this type does not differ in shape from some of the flat-backed, socketed spearpoints. Only a very small number of these points have been found. All of these are provided with a rivet hole in the socket. An example in the W. H. Elkey collection is about four inches in length and comes from Mequon, Ozaukee County. Another, obtained in Milwaukee County, is in the local museum collections. (Fig. 53.)

PIKES AND PUNCHES.

(PLATE 12.)

In this class of objects, which are as yet alluded to by students and collectors by either of the above or other names, are included the largest copper implements found in our state. Little or no attention has as yet been given by local students to the study or investigation of the manner of their employment by the aborigines. At present we must therefore content ourselves with a simple description of a few characteristic forms and such additional information as may be obtained.

The line of demarkation between many of these implements and the awls or perforators, which some of them greatly resemble, is uncertain. They are rod-like in form, usually circular or square, less frequently rectangular in section, and taper to a point at each end. In a number of examples one end only is pointed. Very large specimens of each of these several patterns have been found. The largest of these is in the Wyman collection in the Field Columbian museum. It is about forty inches in length, one inch in diameter at the middle and tapers to a point at either extremity. It weighs five and a quarter pounds and was obtained from a burial mound on the Abraham place at Peshtigo, Marinette County.

A specimen in the H. P. Hamilton collection is twenty-nine inches in length, seven-eighths of an inch in diameter and weighs two and three-fourths pounds. About one inch from the pointed extremity there is a broken projection which Mr. Hamilton believes to have been a barb. The other end terminates in a small

claw or broken eye. It comes from the town of Maple Creek, in Outagamie County. In the T. W. Hamilton collection at Berlin there is another fine specimen which is eighteen and a half inches in length and weighs one and a half pounds. The author is indebted to Mr. W. H. Elkey for a sketch of a specimen found at New Haven, Adams County. (Fig. 76.) It is fourteen and a half inches in length and weighs one and three-eighths pounds. Other large specimens are to be seen in the J. S. Pickett, W. H. Elkey and Milwaukee Museum and State Historical Society collections. Some of these are rather flat, rectangular in section and one inch in width and less than three-eighths of an inch in thickness. They are pointed at one extremity and rounded or blunted at the other. Some large specimens are known to have been cut in two and variously maltreated by the persons who found them.

In the Field Museum collections implements of this pattern ranging from eight inches or less up to the largest size are classed as "pikes." That they were employed as weapons is extremely doubtful. It has been suggested that they may have been heated and employed in the burning out of wooden canoes or wooden vessels, the intervening portions of wood being afterwards cut or chipped away. There is reason to believe that some of the lighter forms were mounted in wooden handles, at least one example with an accompanying copper ferule having been found at Milwaukee. This specimen formerly belonged to Mr. C. L. Mann and is now in the local museum collection.

AWLS AND DRILLS.

(PLATE 11.)

These are considerably smaller but allied to the pointed implements just described. They have been obtained nowhere in greater numbers than upon the Lake Michigan shore village sites in Sheboygan and Manitowoc counties. They vary in size from less than one inch to six inches and more, and in thickness from one-sixteenth to one-half an inch. The greater number are of very small size.

The simplest and most frequent form is a slender cylindrical piece of metal pointed at one or both extremities. A second and usually stouter form is either round or square in section and tapers from a well marked shoulder at or near the middle to both extremities. Sometimes one end only is pointed. Occasionally also the upper half of the implement is straight and

the lower half tapers to a point. Many of these small implements were probably mounted in handles of wood or bone, the object of the shoulder being to prevent their passing too far into the handle. Similar implements of bone and stone have been found in Wisconsin. In Europe similar tools of bronze occur in barrows and elsewhere. Most of them were probably employed in drilling holes in wood, bone or stone, in piercing skins and for similar purposes. The Eskimo are said to employ somewhat similar implements of bone for catching waterfowl. They are used by attaching a line to the center, the bone spindle being baited with a small fish into which the implement is inserted lengthwise. Large fish are captured by them in the same manner. We have no record of the employment of such methods by Wisconsin Indians. (Figs. 58-66.)

SPIKES.

(PLATE 12.)

In a number of Wisconsin cabinets are to be seen copper implements locally known as "spikes," taking their name from the close resemblance which they bear to the modern articles. Such objects are to be seen in the Hamilton, Elkey, Ellsworth, Milwaukee Museum and a few other collections. Only a very small number of them appear to have been recovered. As may be expected, these vary somewhat in shape and size.

A specimen now before the writer is four and a half inches in length, one-fourth of an inch in thickness, with one extremity pointed and the other enlarged and blunted to form a head. Another is seven inches in length and tapers gradually downward from the head, where it is three-fourths of an inch in diameter, to the point. A few specimens are decidedly square in section.

An examination of the heads indicates that they are not the result of pounding while in use, but constitute an intentional feature of these implements. We have no suggestion to offer as to their function. They may be simply perforators or drills. Some of the stouter implements with broad, flattish points may have been employed as chisels. (Fig. 67.)

NEEDLES.

(PLATE 12.)

These are obtained from the same sites as the foregoing and are frequently associated with them, though not nearly as numerous.

All are provided with eyes and except in their somewhat ruder fashioning do not differ from the needles in ordinary domestic use at the present day. Their purpose, of course, requires no explanation.

These implements range in size from less than two to as much as eight and an eighth inches. The average size appears to be between two and three inches. Such implements are to be seen in most of the Eastern Wisconsin collections. (Figs. 68-75.) In the Blake collection in the Milwaukee Museum is a small series of copper needles from Mexico.

FISHHOOKS.

(PLATE 12.)

Hundreds of these and fragments of possibly thousands of others have been collected from the aboriginal village and camp sites extending along the west shore of Lake Michigan at intervals from the north line of Milwaukee County to Kewaunee County and possibly beyond. They have also been obtained in numbers from the village sites at Green Lake and at various other localities along the upper Wisconsin, Fox, Wolf and Little Wolf rivers, and elsewhere in this part of the state where good fishing was to be had. Some have also been found far to the north along the Lake Superior shore.

Most specimens are of small size, from less than an inch up to two inches in length. The largest example known to the author is four inches in length. They are mostly circular, though sometimes decidedly square in section. The points curve and slant outward and inward at all angles and degrees of curvature. None of them, so far as can be ascertained, possess any indication of a barb. (Figs. 77-99.)

The shank at the point of attachment to the line is most frequently plain. Sometimes, however, it is notched, flattened, bent over and flattened, or bent over to form an eye. A few specimens have been collected which have bits of sinew or twisted fiber still attached to the shank. Fine series of these useful articles are to be seen in the R. Kuehne, H. P. Hamilton, A. and J. Gerend and other Manitowoc and Sheboygan county collections.

In the H. P. Hamilton cabinet is a cache of ten remarkably fine fishhooks obtained from the bank of the Little Wolf River, in the township of Muckwa, in Waupaca County. These vary from two and a half to two and three-fourths inches in length,

the strongly and broadly curved hook reaching up to about opposite the middle of the shank. Some are circular and others square in section, and all are of a nearly uniform thickness of one-fourth of an inch. Several have the tips of the shank flattened and all are heavily encrusted with soil and verdigris, plainly indicating the manner in which they had laid upon and across each other. (Fig. 100.)

We have nothing in stone to approximate these copper fishhooks. The few flint fishhooks to be seen in some of the smaller local collections are frauds. A small number of bone fishhooks have been collected in Wisconsin.

PECULIAR IMPLEMENTS.

In a few of the large Wisconsin cabinets are to be seen a very small number of implements whose exact functions are unknown and which it would be difficult to assign to any of the various classes here described.

One of these in the H. P. Hamilton collection is eight and one-quarter inches in length. It is circular in section and tapers to a point at either extremity. It is seven-eighths of an inch in diameter near the thicker extremity and is knotty all over the surface. Mr. Hamilton suggests that it may have been employed as a small club or bludgeon. It weighs eight and one-half ounces and comes from Little Chute, Outagamie County. In the same collection there is also to be seen a long, curved, flattish implement which, it has been suggested, may have served as a sword. It is about twenty inches in length and about one inch in width near the middle. It was obtained with a cache of six other copper implements at Oconto, Oconto County, Wis. In the Elkey and Milwaukee Museum collections are several curious implements which the author intends to describe in a future number of this bulletin. Wisconsin students are requested to cooperate with him in securing sketches and outlines of others.

EXPLANATION OF PLATES.

The Page numbers refer to the parts of the bulletin where implements
of this class are described.

PLATE 1.

(All figures are reduced.)

Fig.	Page.
1. Union, Waupaca County, length, 5 inches, F. M. Benedict collection	61
2. Waukesha County, length 5¼ inches, Milwaukee Public Museum	61
3. Rush Lake, Winnebago County, length 5½ inches, J. G. Pickett collection	61

PLATE 2.

4. Eau Galle, Dunn County, length 9½ inches, formerly in W. H. Ellsworth collection	62
5. Brooklyn, Marquette County, length 9 inches, S. D. Mitchell collection	63
6. Manitowoc County, length 6¾ inches, H. P. Hamilton collection	63

PLATE 3.

7. Lake Chetek, Barron County, after sketch by Prof. T. H. Lewis	64
8. Fond du Lac County, length 6½ inches (front and side view), Milwaukee Public Museum	64

PLATE 4.

9. Meeme, Manitowoc County, length 4¾ inches, formerly in W. H. Ellsworth collection	66
10. Wayne, Washington County, length 4¾ inches, formerly in W. H. Ellsworth collection	66
11. Two Rivers, Manitowoc County, length 2 inches, H. P. Hamilton collection	66

PLATE 5.

12. Wisconsin, length 1½ inches, formerly in W. H. Ellsworth collection	68
13. Wisconsin, length 1 inch, formerly in W. H. Ellsworth collection	68
14. Waushara County, formerly in F. M. Caldwell collection	68
15. Rhine, Sheboygan County, length 4 inches, R. Kuehne collection	68
16. Baraboo, Sauk County, length 9 inches, formerly in W. H. Ellsworth collection	69
17. Sheboygan County, length 3¾ inches, R. Kuehne collection	69
18-19 Two Rivers, Manitowoc County, H. P. Hamilton collection	69

PLATE 6.

20. Cato, Manitowoc County, length 8¼ inches, formerly in W. H. Ellsworth collection	69
21. Green Bay, Brown County, length 6¾ inches, J. P. Schumacher collection	69
22. Pardeeville, Columbia County, length 6¾ inches, W. H. Elkey collection	70

PLATE 7.

23. Eden, Fond du Lac County, length 5½ inches, formerly in W. H. Ellsworth collection	70
24. Wisconsin, length 3¾ inches, formerly in W. H. Ellsworth collection	71
25. Racine County, length 4½ inches, formerly in W. H. Ellsworth collection	71
26. Farmington, Washington County, length 5¼ inches, formerly in W. H. Ellsworth collection	71
27. Two Rivers, Manitowoc County, length 3¾ inches, formerly in W. H. Ellsworth collection	72
28. Dundee, Fond du Lac County, length 5¾ inches, formerly in W. H. Ellsworth collection	72
29. Town of Newton, Manitowoc County, length 2¾ inches, H. Geo. Schuette collection	72

EXPLANATION OF PLATES.

PLATE 8.		Page.
Fig.		
30.	Kewaskum, Washington County, length 3¼ inches, formerly in W. H. Ellsworth collection.....	72
31.	Shawano, Shawano County, length 6¼ inches, formerly in W. H. Ellsworth collection.....	72
32.	Shawano County, length 6¾ inches, F. M. Benedict collection..	73
33.	West Bend, Washington County, length 8 inches, formerly in W. Ellsworth collection.....	73
34.	Norway, Racine County, length 8 inches, formerly in W. H. H. Ellsworth collection.....	73
PLATE 9.		
35.	Pewaukee, Waukesha County, length 6¾ inches, formerly in W. H. Ellsworth collection.....	74
36.	Fremont, Waupaca County, length inches, F. M. Benedict collection.....	74
37.	Neshkora, Waushara County, length 6¾ inches, formerly in W. H. Ellsworth collection.....	74
38.	Scott, Columbia County, length 5¼ inches, W. H. Elkey collection.....	74
PLATE 10.		
39-44.	Two Rivers, Manitowoc County and elsewhere, length 1½ to 3¼ inches, formerly in W. H. Ellsworth, collection.....	75
45.	Lake Butte des Morts, Winnebago County, length 4¾ inches, formerly in W. H. Ellsworth collection.....	75
46.	Potter, Calumet County, length 4¾ inches, formerly in W. H. Ellsworth collection.....	76
47.	Rapids, Manitowoc County, length 4 inches, formerly in W. H. Ellsworth collection.....	76
48.	Scott, Sheboygan County, length 6 inches, formerly in W. H. Ellsworth collection.....	76
49.	Rhine, Sheboygan County, length 3¼ inches, G. W. Wolff collection.....	76
50.	Sheboygan County, length 1½ inches, in the author's possession.....	77
51.	Pewaukee, Waukesha County, length 4¼ inches, (front and back view), Milwaukee Public Museum.....	77
PLATE 11.		
52.	La Crosse County, length 6¼ inches, E. C. Perkins collection...	77
53.	Cedarburg, Ozaukee County, length 4¼ inches, W. H. Elkey collection.....	79
54.	Two Rivers, Manitowoc County, length 2¾ inches, formerly in W. H. Ellsworth collection.....	7
55.	Packwaukee, Marquette County, length 2½ inches, formerly in W. H. Ellsworth collection.....	79
56.	Shawano County, length about 11 inches, formerly in W. H. Ellsworth collection.....	79
57.	Wisconsin, length 8¾ inches, Milwaukee Public Museum.....	80
58-66.	Two Rivers, Sheboygan and elsewhere, length ½ to 5¾ inches, W. H. Ellsworth and A. and J. Gerend collection.....	81
PLATE 12.		
67.	Wisconsin, W. H. Elkey collection.....	82
68-75.	Two Rivers and Sheboygan, length ¾ to 5½ inches, Ellsworth, Hamilton and Kuehne collections.....	82
76.	New Haven, Adams County, length 14½ inches, after sketch furnished by W. H. Elkey.....	81
77-99.	Two Rivers, Sheboygan and Green Lake, length ½ to 4 inches, Ellsworth, Hamilton and other collections.....	83
100.	Muckwa, Waupaca County (specimen from cache find), H. P. Hamilton collection.....	84

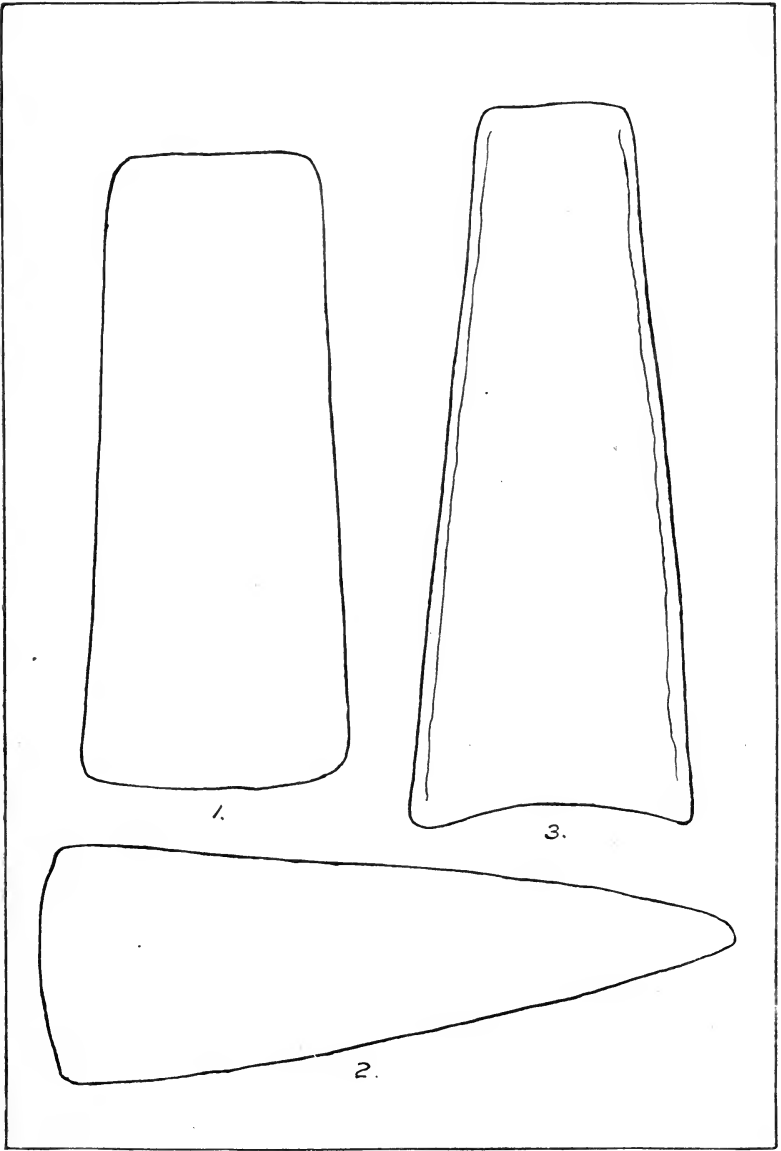


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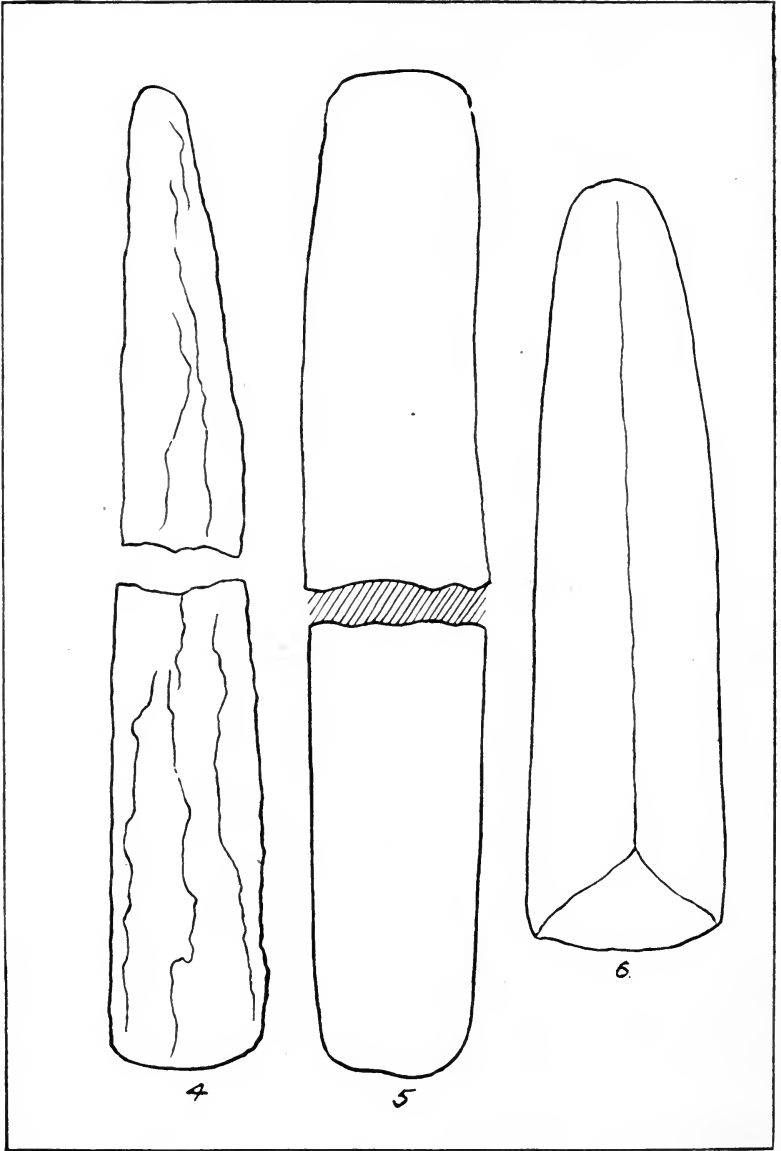


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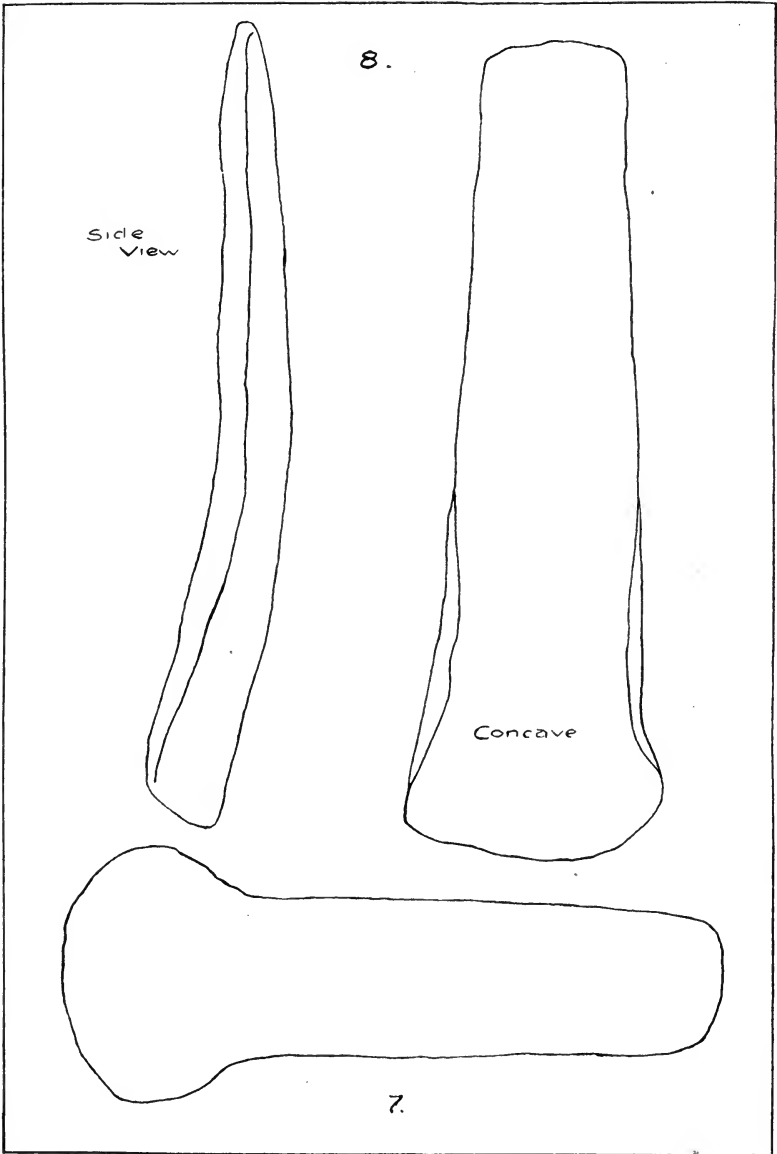


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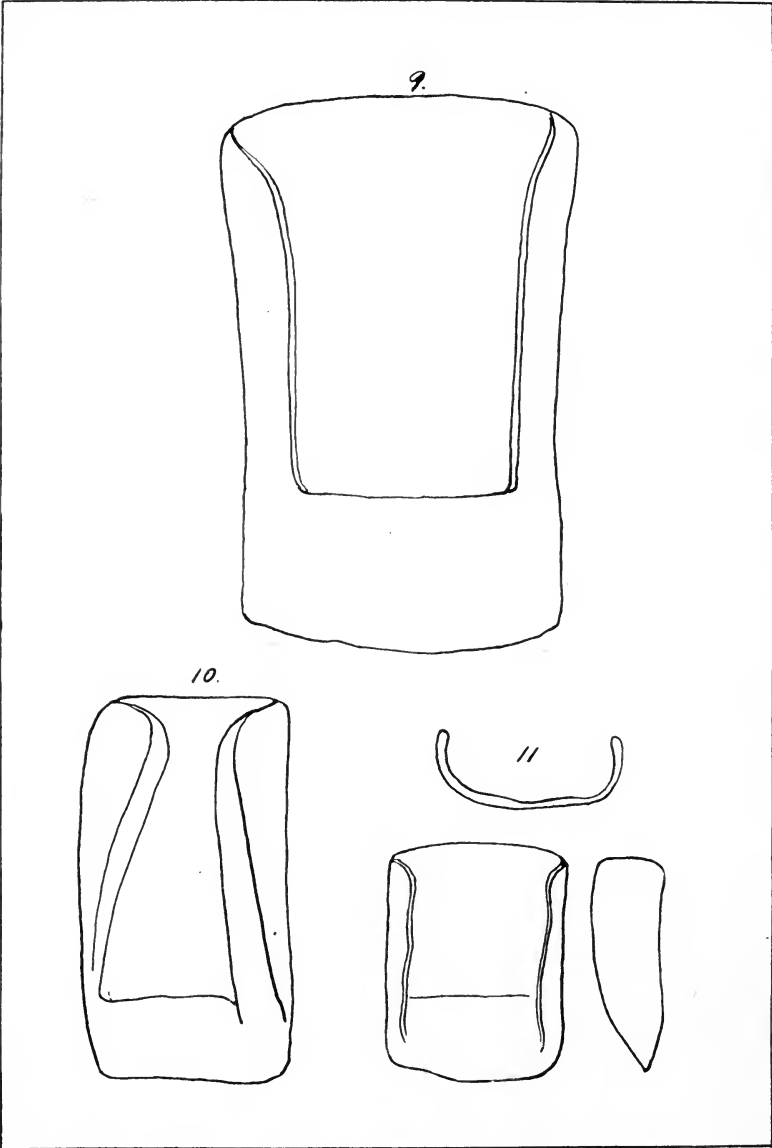


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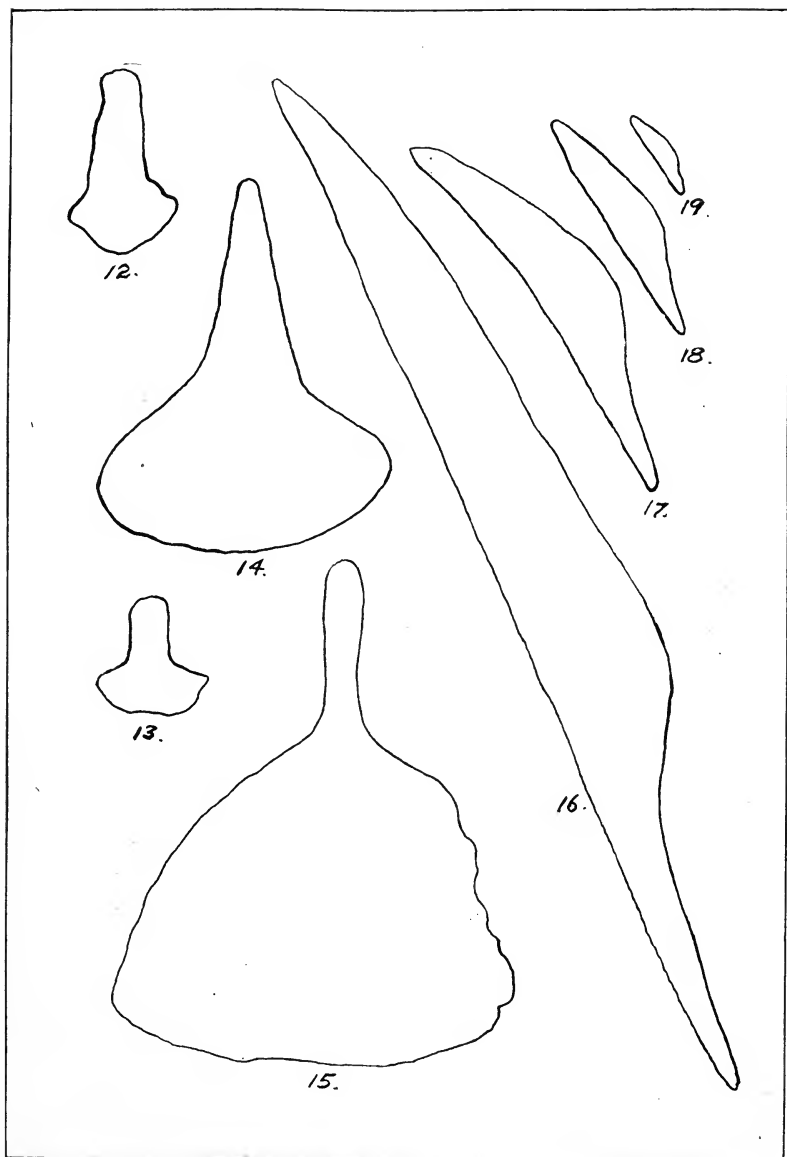


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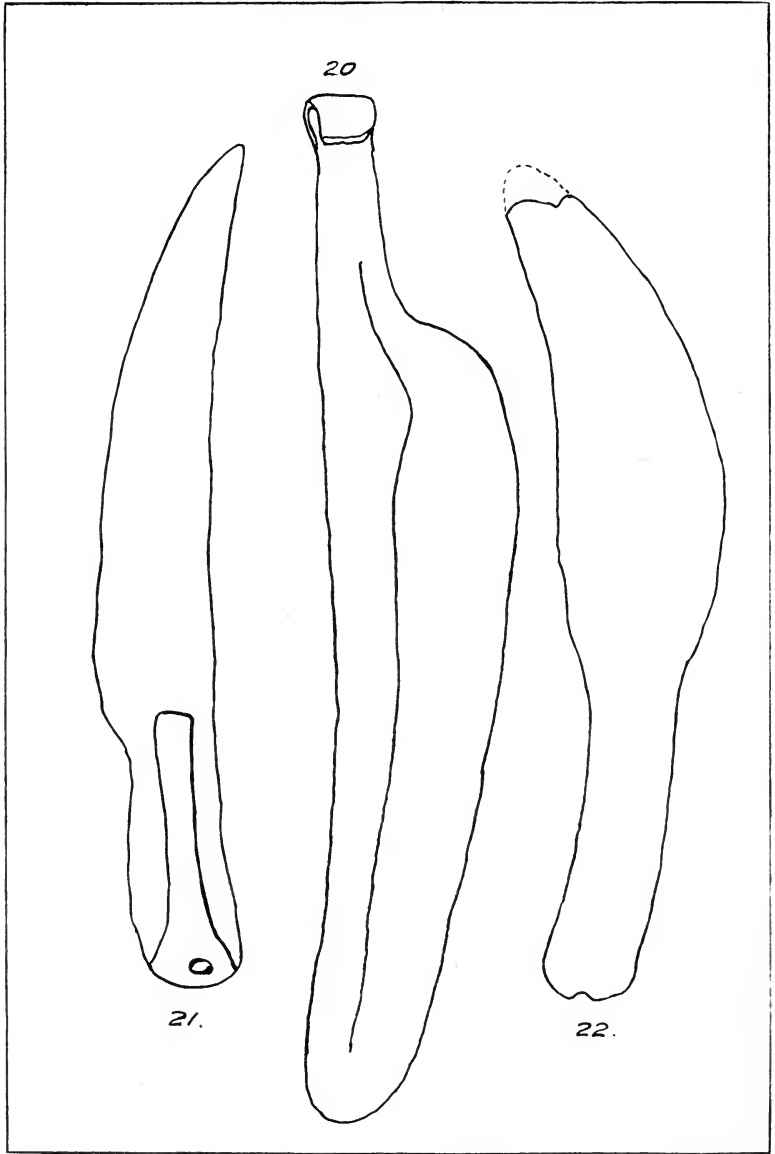


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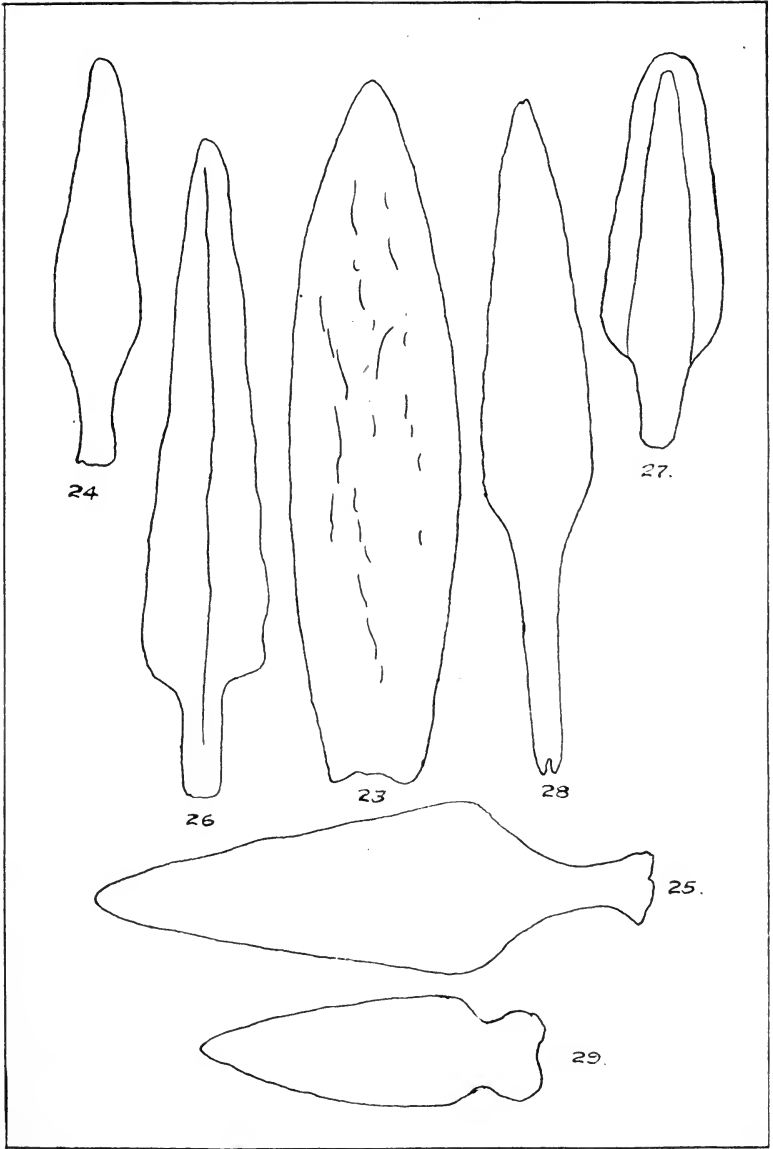


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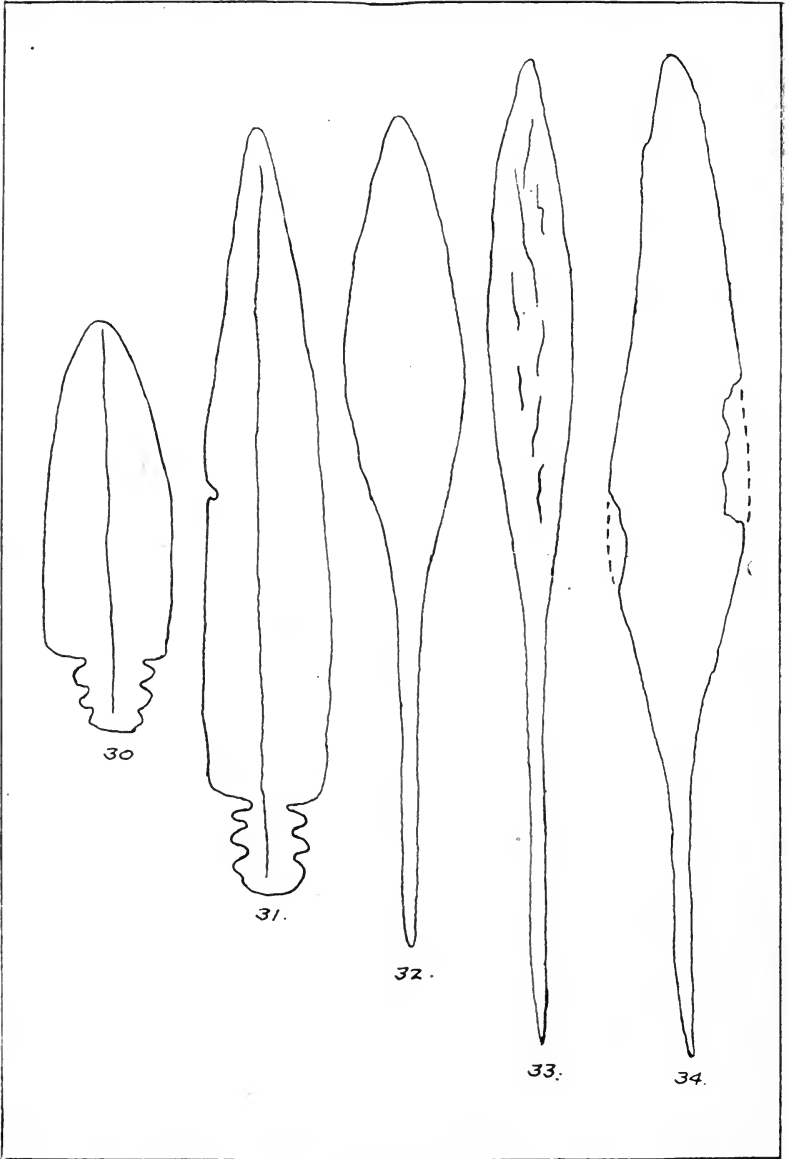


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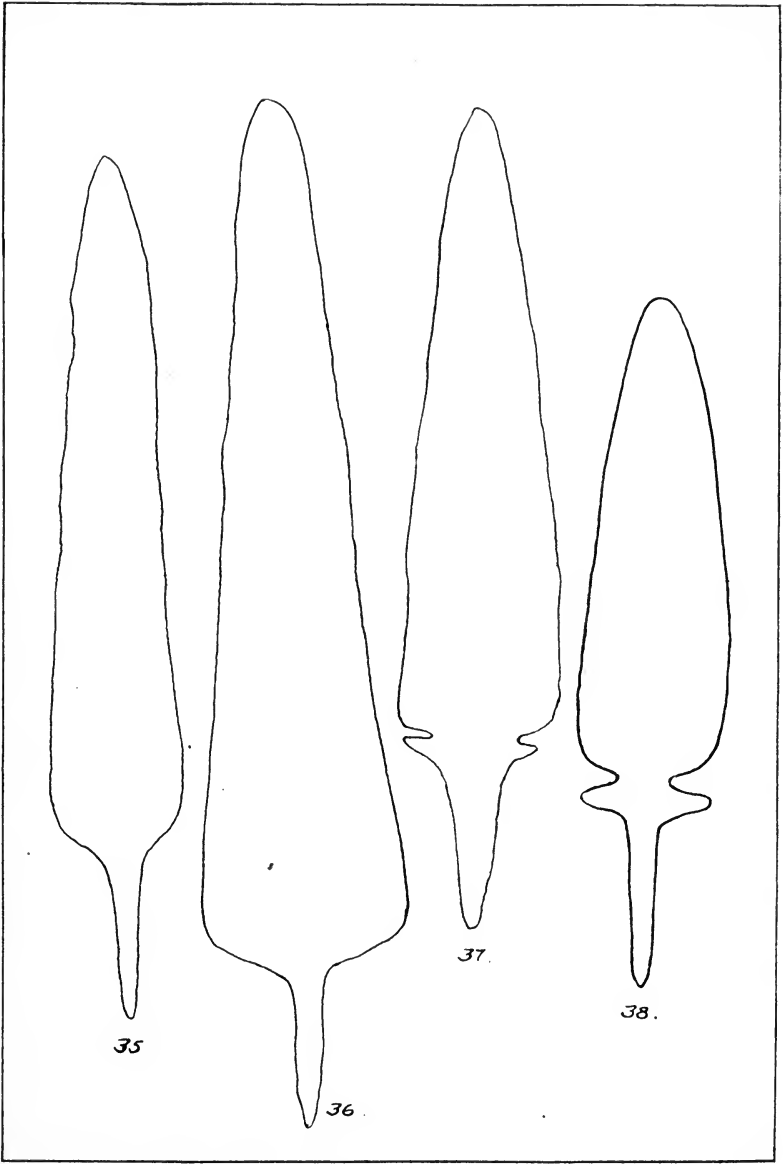


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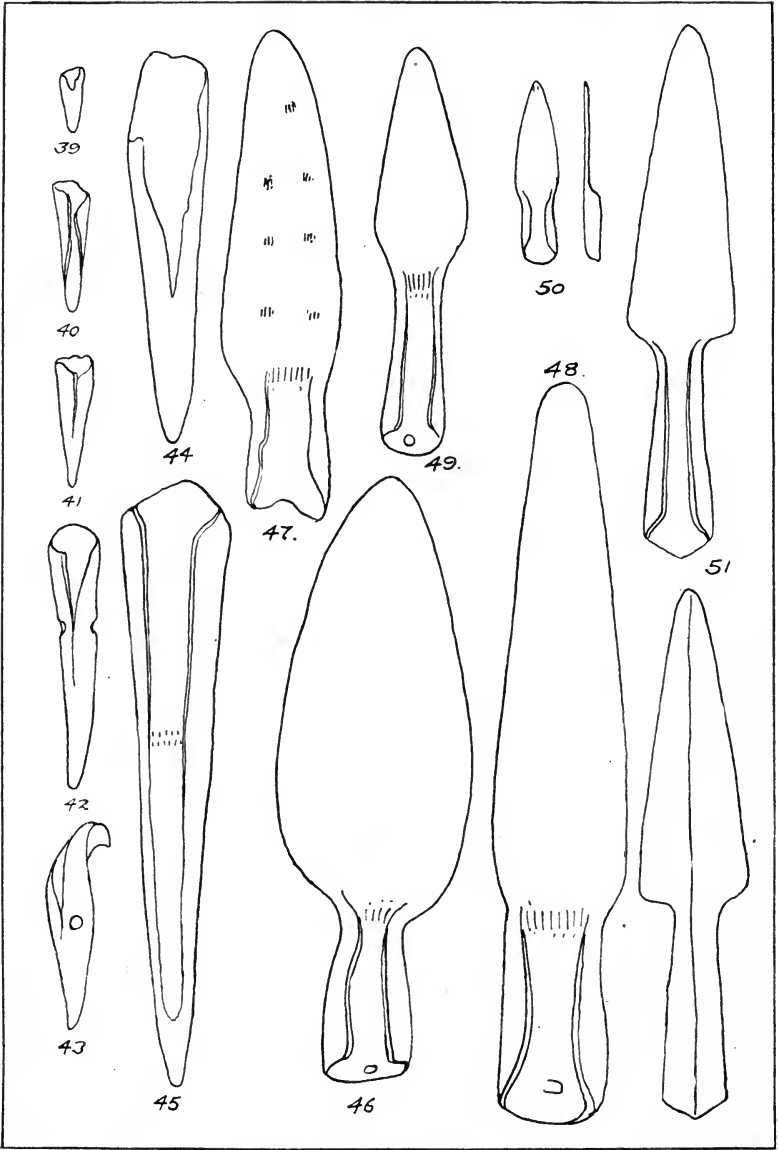


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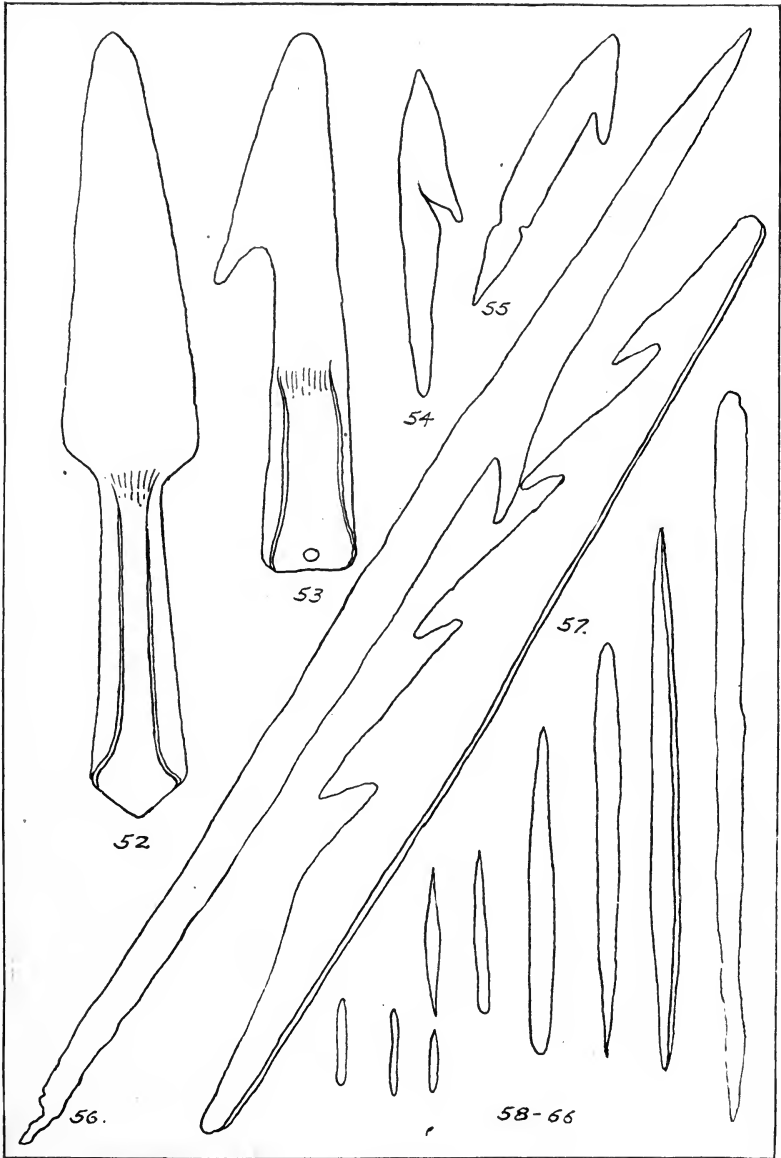


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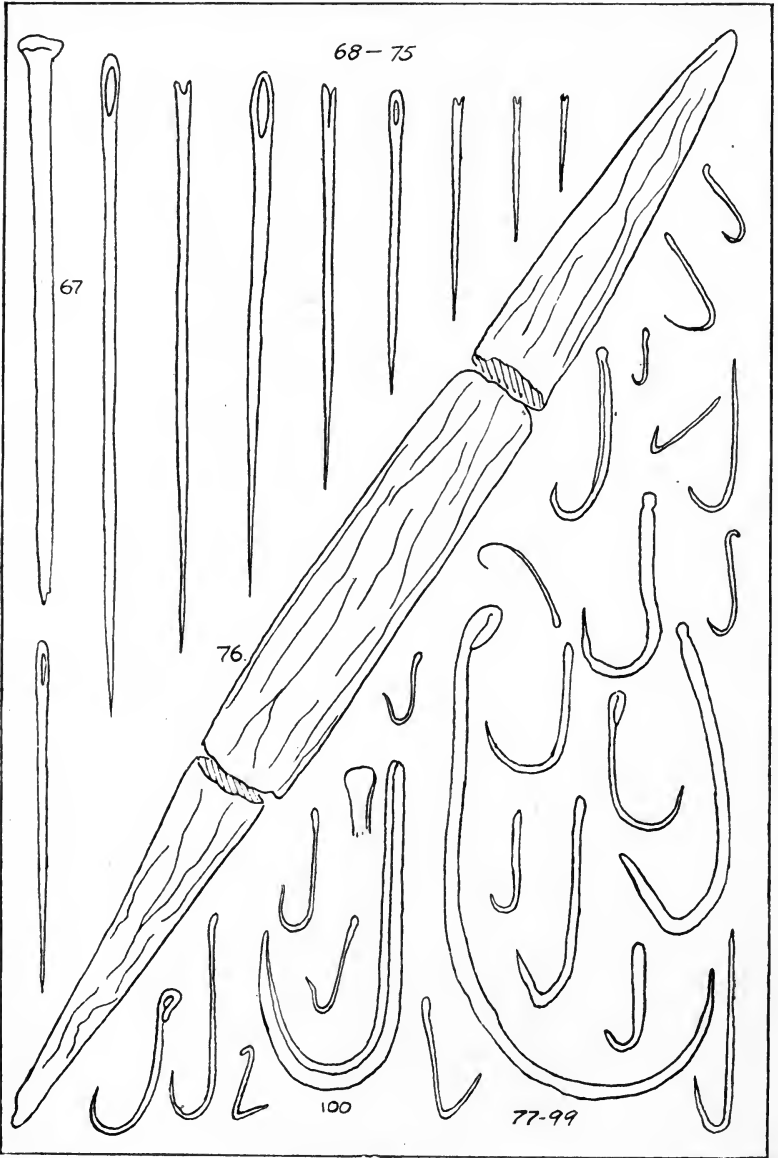


Plate 12.



OUR AIM:- TO STUDY, PRESERVE, RECORD
Wisconsin Antiquities.

Design by Richard Philipp.



Copper Gorget (W. H. Ellsworth Collection)
Copper Beads (H. P. Hamilton Collection)

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The Native Copper Ornaments of Wisconsin.

BY CHARLES E. BROWN.

INTRODUCTORY REMARKS.

The present article is intended to supplement that on the "Native Copper Implements of Wisconsin," which appeared in the January number of this publication. Its mission, like that of its predecessor, is mainly to acquaint our brother students with the rather meagre amount of information at hand and, if possible, to prevail upon them to assist the author and the Wisconsin Archeological Society in collecting such additional data as may, in the near future, enable the publication of a more complete treatise on this subject.

The generous response, by a number of our fellow students, to the appeal included in our previous bulletin, has enabled us to add considerable valuable information to that already in our possession. We trust that the present number may meet with a like reception. Although thousands of copper implements have been obtained in Wisconsin, copper ornaments are of far less frequent occurrence and are usually seen only in the larger local collections.

This is, of course, to be expected, for even had the original quantity been equal, the more destructible nature of a majority of the ornaments would, at this late day, quite reasonably account for the present disparity in numbers. As elsewhere, the ornaments preserved to us are confined mainly to beads. The range of classes and types of local artifacts is not large, yet it is probably equal to, if not in excess of, that of any other section of the country. Many of the ornaments here described are but crude, inartistic affairs, while others will compare favorably with any recovered elsewhere.

In considering them, the student will remember that they were probably all once brightly polished, thus rendering them doubly

attractive to the primitive Indian, who apparently cherished them among his most valued possessions.

It is largely owing to their infrequency that it has been deemed advisable in this issue to depart slightly from our former plan and describe certain of them in greater detail than has already been done with the copper implements.

In presenting this treatise, the author desires to express his grateful thanks to the Messrs. W. H. Ellsworth and H. P. Hamilton, without whose kindly encouragement and assistance its publication would scarcely have been possible.

The list of others who have assisted, in various ways, is too long to be printed in full. Thanks are, however, especially due to the Messrs. T. H. Lewis, J. P. Schumacher, S. D. Mitchell, J. G. Pickett, E. C. Perkins, Harlan I. Smith, W. H. Elkey, Rolland L. Porter, H. George Schuette, Dr. G. A. Dorsey, and Dr. J. F. Snyder.

Headbands.

In his recent valuable monograph on the "Metallic Ornaments of the New York Indians," Rev. W. M. Beauchamp has described and illustrated a number of sheet silver headbands worn by the aborigines of that section of the country.

The following is an extract from his description:

"The silver headband is a long strip of sheet silver, straight on the lower edge, but usually with points of some kind on the upper and with some pretty pattern between. The Onondagas call these Ta-yone-non-aich-han-hust'-ah. The whole headdress, which once often included this, was called Gos-to'-weh by the Senecas."

"Quite commonly, * * * the headband encircled an ordinary hat, and in this way the writer has seen several used by one person, one being placed above another. Usually the wearer had but one, which served as a foundation for other ornaments. They were secured by strings in the holes at the ends" (p. 94).

We have not been able to ascertain, with any degree of certainty, whether such headbands were worn by the Wisconsin Indians of early historic times. Still it is reasonable to suppose that they were, and that these may have succeeded similar ornaments of native copper of an earlier period.

In the Milwaukee Museum are two broad, flat strips of native copper which it is thought may have well served for such a purpose.

Both of these fragments, originally curved, have the appear-

ance of having been straightened, by the finders, and may have formed a part of the same band. The larger (6" x 1")* and the smaller (3 $\frac{5}{8}$ " x 1"), and less than $\frac{1}{4}$ of an inch in thickness, are ornamented along either edge and down the middle with a row of deep indentations. The locality is Sheboygan County.

Headplates

In the accompanying cut (Fig. D) is shown a copper plate, obtained by Dr. Cyrus Thomas from Mound No. 6, White's Group, Crawford County, and figured and described by him in the 12th Annual Report of the Bureau of Ethnology (pp. 80-81).

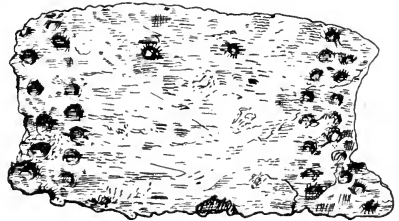


FIG. D.

The following is an extract from the published description :

"No. 6, about 160 feet northwest of No. 5, oblong, 50 feet in diameter, north and south, and 4 feet high, was composed of black, sandy soil from the fields. In the northern side, at the depth of 2 feet, were ten skeletons, some folded and others stretched out on their backs, heads in every direction. A little west of the centre, at the depth of 4 feet, two more were found, folded, with heads to the west. On the skull of each of these was a thick copper plate, apparently beaten out of native copper with rude implements. The larger, over the southern skull, represented in Fig. 37, is 8 inches long by 4 $\frac{1}{2}$ inches wide. About 6 inches above it was a fine large lancehead. The other plate is nearly square, 4 $\frac{1}{4}$ inches by 4 $\frac{1}{4}$ inches. The bones were so rotten and soft, except immediately under the copper plates, that none of them could be preserved. Fresh water shells were scattered through the mound at various depths."

No other records of the use of similar ornaments have as yet come to our notice.

Earrings.

Such articles, fashioned of native copper, are of infrequent occurrence in Wisconsin cabinets. Future researches may, however, materially increase this number.

The fondness of the later Indians for such ornaments is well known, and it is quite probable that they were also in rather general use among the earlier aborigines.

*Measurements in inches refer to the extreme length and breadth.

Rev. W. M. Beauchamp states, that the earliest metallic earrings in use among New York aborigines were probably those of copper wire coiled and flattened, and believes it possible that perforated disks and coins may have served the same purpose in early historic times, but that they were more likely to have been employed in some other way. Glass and shell beads, and probably many other things, were so utilized.

In the S. D. Mitchell collection is a small crescent-shaped copper ornament which it is thought may have served as an earring or nosering, being well adapted for such use. (Pl. 13, Fig. 101.) This specimen, very simliar in shape to the earrings still in use by certain Wisconsin Reservation Indians, measures $1\frac{3}{8}$ inches in extreme width, and was obtained from a village site in Marquette Township, Green Lake County.

Mr. E. C. Perkins reports the existence of another of somewhat similar outline, obtained near Prairie du Sac, Sauk County. (Fig. 102.) In this locality copper ornaments of any class are said to be of rare occurrence.

A similar specimen was secured in Calumet County. (Fig. 103.) A somewhat larger ornament, also probably belonging to this class, is in the J. P. Schumacher collection (Fig. 104), and was obtained, with other objects, from a district located just north of Point Au Sable, Brown County, on the supposed site of the early mission of Father Claude Allouez. It measures about $1\frac{5}{8}$ inches in diameter.

In the Hamilton collection are several copper ornaments which may have served as earrings.

Ear Spools or Earplugs.

These so-called "ear spools" or "ceremonial buttons" have been obtained from various localities in Ohio, Illinois and the South. Some of these are rather elaborately ornamented with embossed figures.

Three or four thousand, a large number of which are in the Field Columbian Museum collections, were taken from the mounds of the celebrated Hopewell Group, in Illinois.

A specimen in the Ohio State Archeological and Historical Society's collections has still attached to it a fragment of the string or cord by means of which it was probably attached to the ear of its aboriginal owner. Similar objects of stone overlaid with sheet copper have been described by various authors.

A recent letter from Dr. J. F. Snyder, president of the Illinois State Historical Society, describes one of these. It is composed of two somewhat funnel-shaped, polished disks of hammered copper, nearly 2 inches in diameter, and joined together at their apices; made apparently in one piece and not attached or riveted. With it were found a pair of pulley-shaped ear plugs made of bone, 2 inches in diameter, and overlaid with very finely beaten copper. In our Fig. E we give an illustration of an ear-spool.

Prof. T. H. Lewis has obtained ornaments of this nature during mound explorations conducted by him at Prairie du Chien, Crawford County, and Wyalusing, Grant County.

So far as can be ascertained no other examples of these peculiar and interesting ornaments have been found in Wisconsin, although it is not unreasonable to suppose that a small number may yet be recovered, especially from the southern counties of our state.

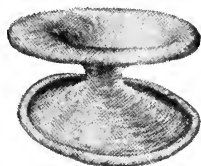


FIG. E.

Crescents.

In this class of copper ornaments, of peculiar interest to the student and collector, are at present included a number of thin, flattish objects the basis of all of which appears to be the crescent, either quite simple or variously modified by the addition of prongs or other prolongations arising from the inner or upper edge, near the middle or extremities.

There is probably little doubt that the greater number of the objects included under this class were worn by our primitive Indians as breast ornaments, being fastened to the neck by means of cords. In this way several of them may have been worn, one below the other. The adaptability of certain of the pronged forms for use as hair ornaments is noticeable.

The general bluntness of their edges and the absence of any indication of their use as tools, has caused local students to reject the idea that any of them may have served as cutting implements.

A very considerable number have already been collected in Wisconsin and others will probably be found as old sites are more thoroughly explored, and new lands opened to cultivation. The existing examples appear to have been obtained, for the most part, from the village sites and graves, where they sometimes occur in association with copper beads and other articles of personal adorn-

ment. But very few have been recovered from the burial mounds of the state.

A few have also been found in Minnesota, Northern Michigan and Illinois. What is without doubt the finest series, representing nearly all of the known types, is in the H. P. Hamilton collection. Some of these are illustrated in the accompanying half-tone. (Fig. E.)

In the A. W. Robinson and James Terry collections, in the American Museum of Natural History, New York, there are said to be five of these crescents, variously obtained in Sheboygan³, Outagamie and Waupaca counties, Wisconsin.

No articles of analogous form in iron, hematite or any metal other than native copper have as yet come to the author's notice. Flint implements of a crescentic shape are occasionally seen in local cabinets, but these are generally classed as knives. Small obsidian, agate or other so-called "jewel points" obtained from Oregon and elsewhere in the West are sometimes of this form.

Gen. Gates P. Thruston, in his *Antiquities of Tennessee* (p. 296), figures a crescent of highly polished syenite 11½" in length, one of the extremities being slightly broken. He mentions the finding of others in Ohio.

He says of them:

"These symmetrical crescents are too fragile for any practical use as tools or implements. Their graceful forms suggest that they may have been used as symbols by the sun worshipping priests of the Stone Grave race."

In the Ohio State Archeological and Historical Society's collections are fragments of a number of large mica crescents which were obtained from an Ohio mound. Some of these are figured and described by Mr. Gerard Fowke in his recent *Archeological History of Ohio* (p. 702).

In the same collection are a number of small shell crescents obtained by Dr. Wm. C. Mills in his explorations of the Gartner Mound and Village Site, Ross County, Ohio, in 1902-03. Three of these were removed from about the neck of a skeleton.

"The largest one, which is pierced with two holes, is 2½ inches in length and is not decorated. The second crescent, which was hung directly below the first, is 2 inches in length and pierced with one hole, but is decorated with notched edges. The third crescent, which is 1 1-3 inches in length, is pierced with three holes and the edges also ornamented with notches.

Attached to these crescents below were found three triangular pieces of ocean shell, perforated for attachment, and four beads made of small ocean shells." (W. C. Mills' Expl. of Gartner Mound and Village Site, p. 14.)

The following is a brief description of the Wisconsin types of copper crescents:

1. One of the simplest, although uncommon forms, has the upper edge quite straight and the lower one broadly curved. A fine example ($6\frac{1}{4}'' \times 1\frac{7}{8}''$)* in the J. T. Reeder collection, Calumet, Mich., comes from Dollar Bay, Houghton County, Mich. (Fig. 105.)

In the W. H. Ellsworth collection, Milwaukee, there were formerly several specimens. One from Two Rivers, Manitowoc County, probably was originally nearly 4 inches in length and $\frac{1}{2}$ inch in width at the middle. (Fig. 106.)

Another, an imperfect specimen, was one inch in width and about 4 inches in length. (Fig. 107.)

2. A closely allied type has both edges curved, approaching more nearly the true crescent form. The degree of curvature varies considerably in the small number of specimens known. An example ($4'' \times$ less than $\frac{1}{2}''$), Farmington, Washington County, was formerly in the Ellsworth collection. (Fig. 108.)

Another ($2\frac{3}{4}'' \times \frac{1}{2}''$), in the R. Kuehne collection, found on the Black River village sites, Sheboygan County, is more roundly curved. (Fig. 109.)

In the F. M. Benedict cabinet are two specimens, one ($4'' \times \frac{5}{8}''$) from Marquette County (Fig. 110), and the other ($2\frac{3}{4}'' \times \frac{3}{8}''$) from Sheboygan County.

Prof. T. H. Lewis has collected this type at Prairie du Chien, Crawford County, and from a mound at Lake Chetek, Barron County. It also occurs in Minnesota.

In the author's collection of sketches is one from Munroe County, having both extremities notched to allow for suspension. (Fig. 111.)

Prof. Lewis obtained a similar specimen during his investigations at Lake Chetek.

Mr. S. D. Mitchell is the owner of a curious small crescent (about $2'' \times \frac{1}{4}''$), from Green Lake, Marquette County, which has

*Measurements are given in inches and refer to the extreme length and breadth unless otherwise stated.

the portion of its lower edge, opposite the middle, concave, and is less than half an inch in width at either side of the concavity. (Fig. 112.)

A peculiar specimen, from the Two Rivers village sites, in the Hamilton cabinet, is shaped much like a letter U. It is nearly square in section, its extremities curving outward, $1\frac{3}{4}$ inches from point to point and $\frac{1}{4}$ of an inch in width and thickness at its



FIG. F.

base. (Fig. 113.) A second specimen was obtained in the Lake Chetek region.

In the Lewis collection there were formerly two crescents collected near the mouth of the Bad Axe River, Vernon County. One of these had the upper edge straight. Both had a single perforation near either extremity. So far as can be learned no similar specimens have been obtained in Wisconsin. Prof. Lewis reports their occasional occurrence in Minnesota.

3. A third type, the so-called "canoe-shaped" crescent, usually

has its upper and lower edges curving equally and produced at the extremities into a short point or embryo prong, directed inward. This is the most frequent Wisconsin type. Possibly the largest and finest example (10" x 2 $\frac{1}{4}$ ", weight 20 oz.) is in the Hamilton collection, and was found in the City of Oconto, Oconto County. It constituted one of a remarkable cache of copper implements, some of which are elsewhere alluded to. (Fig. F-A.)

Another (6 $\frac{3}{4}$ " x 1 $\frac{1}{4}$ ") in the same cabinet, comes from the City of Menominee, Mich. (Fig. F-B.)

The largest specimen (nearly 8" x about 1 $\frac{1}{2}$ ") in the Field Columbian Museum (Wyman Coll., No. 68,134) is from a burial mound near the Menominee River, Menominee, Mich. (Fig. 114.) With it were a number of peculiarly shaped, socketted copper spear-points (Nos. 68,136—68,143), now in the same valuable collection.

Another from Boltonville, Washington County, belonging to the above institution (Wescott Coll., No. 52,297), is 5 $\frac{1}{2}$ inches in length.

Mr. Rudolph Kuehne has a specimen (6" x 1") from a grave or mound destroyed by workmen, while grading a street in the City of Sheboygan. With it were two others of somewhat similar form. One of these (nearly 6" x only $\frac{1}{2}$ ") is now in the Field Museum, and the other in the A. and J. Gerend collection, Sheboygan.

From this grave were also taken a number of copper spears, the present whereabouts of which are unknown.

A specimen (6" x 1 $\frac{1}{4}$ "), formerly belonging to Dr. J. A. Rice, Merton, is in the F. M. Le Count collection, and comes from Germantown, Washington County.

Mr. J. C. Pickett has two examples from the vicinity of Rush Lake, Winnebago County; the larger 4 $\frac{5}{8}$ " x 1", the smaller 4 $\frac{1}{4}$ " x $\frac{5}{8}$ ".

Mr. W. H. Vogel, Milwaukee, has a specimen (5 $\frac{1}{8}$ " x 3 $\frac{3}{4}$ ") found near Cottage Grove, Dane County.

The W. H. Elkey collection contains two examples. The smaller (3 $\frac{7}{8}$ " x about $\frac{3}{4}$ ") comes from Menasha, Winnebago County; the larger (6 $\frac{1}{2}$ " x 1") from Lisbon, Waukesha County.

A specimen (5 $\frac{1}{4}$ " x 1") in the F. M. Benedict collection (Fig. 115) comes from a village site in Farmington Township, Wau-

paca County. The prongs, at the extremities, are about $1\frac{1}{4}$ inches in length, an unusual feature in this type.

The crescent depicted in Fig. 116 is in the Jas. G. Pickett collection and comes from Rush Lake, Winnebago County. The other (Fig. 117) is from Waukesha County.

In the Milwaukee Museum collections is a specimen from Richfield, Washington County, and four others which were obtained by the late F. S. Perkins from a gravel pit burial in Greenfield Township, Milwaukee County.

Mr. Geo. A. West has reported the existence of several of this type in the State Historical Society's collections.

Prof. T. H. Lewis has collected others at Prairie du Chien; Portage, Columbia County, and Montello, Marquette County.

In a photograph of a small collection made in the Lake of the Woods district, Minnesota, and loaned to the author by Mr. H. P. Hamilton, this type of crescent is represented. Hon. J. V. Brower and Prof. Lewis possess specimens obtained in Minnesota. Dr. J. F. Snyder, Virginia, Ill., mentions their occasional occurrence in that state.

4. A fourth type, and which appears to be a rather rare form, has the prongs or points at the extremities of greater length and directed upward or inward. The largest specimen known to the author is in the H. P. Hamilton collection, and comes from Chilton, Calumet County. (Fig. F-C.) Its base ($7\frac{1}{2}'' \times 1''$) is only slightly curved, and the stout projections ($2\frac{3}{4}'' \times \frac{3}{4}''$) arise about half an inch from the extremities.

Another from Door County, in the same cabinet, has a base ($6\frac{3}{8}'' \times \frac{3}{4}''$). The projections at the extremities ($2'' \times \frac{3}{4}''$) are directed inward. In the Milwaukee Museum (Haysen Coll.) is a small specimen from Rhine, Sheboygan County. (Fig. 118.) Another, from Montello, Marquette County, is owned by Prof. Lewis. The crescent-shaped base is square in section, a curious modification. The type also occurs in Minnesota.

5. In a fifth type the prolongations, arising from the extremities of the upper edge of the curved base, approach each other and unite to form a central spike, which is usually circular in section and formed by the prolongations being twisted about each other.

In the Hamilton cabinet there is a fine example of this form

(Fig. F-D) from Park Falls, Price County. From the outer edge of the slightly curved base ($3\frac{5}{8}'' \times \frac{3}{4}''$) to the tip of the spike is $6\frac{3}{8}$ inches.

A similar specimen in the cabinet of Dr. Louis Falge, Reedsville (Fig. 119), was procured from an Indian grave in Maple Grove Township, Manitowoc County. The persons from whom it was obtained report it to have been mounted in the fragment of a wooden handle or staff when found, but it is quite doubtful whether any reliance can be placed in this statement. This specimen (about $6\frac{3}{4}''$ long—the crescent-shaped portion being $4\frac{1}{2}''$ in length) is no longer in perfect condition, having been tampered with by the finders.

In the S. D. Mitchell collection there is a specimen of similar form from Green Lake County. It is in a fragmentary condition, only the crescent and one prolongation being present.

A sketch of another formerly in the A. W. Robinson collection, thought to have come from Waukesha County, has been furnished by Mr. H. P. Hamilton. This is also in a fragmentary state, the spike having been broken away. It was probably quite as large as either of those above described.

In the F. M. Le Count collection, is the major part of what was, in all probability, another large example. Only the crescent-shaped portion, 5 inches in length, and about 3 inches of one prolongation remain. Locality, Richfield, Washington County.

A similar fragment is pictured in the photograph of the Lake of the Woods collection already mentioned. A specimen collected by Prof. Lewis came from Portage, Columbia County. The spike is straight and not twisted.

6. In the W. H. Ellsworth collection there formerly was a crescent in which the prolongations arising from the extremities of the curved top (or base) united to form a small loop or eye, instead of a spike, as in the preceding type. (Fig. 122.)

The curved base measured $3\frac{1}{4}$ inches in length, about half an inch in breadth at the middle, and $\frac{1}{16}$ of an inch in thickness.

The prolongations were about $\frac{1}{4}$ of an inch in diameter. This specimen came from what is supposed to have been an aboriginal camp or village site at Daley's Island, Marquette County. The author would be pleased to learn of the existence of similar specimens.

7. In the collection of the Lake of the Woods (Minn.) copper artifacts, already referred to, is a small crescent of peculiar form. (Fig. 120.) In this specimen the prolongations arise near the extremities of the crescentic base, and at a short distance from their origin unite to form a continuous loop. So far as can be ascertained none of this type have been obtained in Wisconsin.

8. Another peculiar type is furnished with a pair of spikes or prongs, usually rather long and either flat or cylindrical in section, which arise on either side of the middle of the curved top (or base). An unusually large example from Scott, Columbia County, is in the W. H. Elkey collection. (Fig. 121.) It probably originally measured fully 8 inches in breadth. A small portion of either extremity of the crescent has been broken away. The breadth across the middle is about $2\frac{1}{2}$ inches. One of the broad flat prongs also is now missing, having been carelessly broken off by its former owner. This piece Mr. Elkey has hopes of being able to secure and thus to restore it to its original state of perfection.

In the H. P. Hamilton collection are two examples of this type. One from Spring Lake, Pierce County, is 5 inches in length and 1 inch in breadth at the middle. The prongs are $3\frac{1}{8}$ inches in length. (Fig. F-E.)

The other, from Maine, Ottertail County, Minn. (Fig. F-F), is of about the same dimensions. The prongs measure $3\frac{1}{8}$ inches in length.

A specimen in the Milwaukee Museum (F. S. Perkins Coll.) from Erin, Washington County, is somewhat damaged but probably once measured fully 4 inches across the curved top, which is nearly 1 inch in width at the widest portion. One prong has been partly broken away. The other measures nearly 4 inches in length. Prof. Lewis has this type from Purdy and Bad Axe or Genoa, Vernon County.

9. A form of crescent from Wautoma, Waushara County, now in the Hamilton collection and apparently closely allied to the preceding, is at present represented, so far as can be learned, in Wisconsin, by but a single example. (Fig. F-G.) It measures nearly $6\frac{1}{2}$ inches across the crescent-shaped base, which is nearly $1\frac{1}{4}$ inches in breadth at the middle. The tapering prongs

are less than 1 inch apart, about $\frac{1}{2}$ inch in width at their origin and $4\frac{3}{4}$ inches in length, the tips of their extremities being united by a cylindrical bar.

Gorgetts and Pendants.

Careful inquiry has failed to establish the existence of only a very few of these in local cabinets. It is quite possible, however, that such ornaments were in more common use among Wisconsin aborigines than the present limited number would indicate. Being fashioned of sheet copper, they would under even ordinary conditions be more likely to suffer destruction, through decomposition, than many other less fragile artifacts, which show very plainly the effects of chemical action during their interment. There is reason to believe that many of the latter were thus destroyed.

The relation which these Wisconsin gorgetts bear to the more elaborate and artistic sheet copper disks and plates of the mounds and graves of the South and Middle South, has already been briefly discussed in our preceding bulletin. There is little doubt but that all belong to the same class of objects.

1. In our plates are illustrated a number of Wisconsin gorgetts and pendants. One of these is a simple leaf-shaped pattern, provided at the broad upper extremity with two perforations, by which means it could be attached, by a cord, to the person of its aboriginal owner. Such pendants are to be seen in several local collections.

Two in the J. G. Pickett collection were obtained at Rush Lake, in Winnebago County. (Fig. 123.) The larger measures $3\frac{1}{8}$ inches in length and $1\frac{1}{4}$ inches across the widest portion, near the top, while the other, which is not as well preserved, appears to have been of about the same dimensions. Mr. Pickett states that several other similar ornaments have been found in the same locality. Others have been collected by Prof. Lewis during his investigations at Prairie du Chien, Crawford County; Aztalan, Jefferson County, and at Lake Chetek, Barron County.

In the J. T. Reeder cabinet are two specimens of the same type which were collected at Portage Entry, Lake Superior.

(Figs. 124-125.) The larger is $2\frac{7}{8}$ inches in length and about $1\frac{1}{8}$ inches in width near the top. The smaller ($2'' \times 1\frac{3}{16}''$) is provided with three perforations arranged in the form of a triangle.



FIG. G.

A very fine specimen obtained near Packwaukee, Green Lake County, was formerly in the W. H. Ellsworth collection. Although apparently belonging to this type, it was more nearly triangular in shape, measuring $5\frac{3}{4}$ inches by about 2 inches across the widest portion near the top, where, quite close to the edge, were two perforations about half an inch apart. It was of sheet copper and about 1-16 of an inch in thickness. (Fig. G.) This type is reported to occur also in Minnesota.

2. In the illustration forming our frontispiece is shown a fine, almost circular, sheet copper gorget about $3\frac{1}{4}$ inches in diameter and 1-16 of an inch in thickness throughout, which was also formerly in the Ellsworth collection, and came from the banks of Silver Lake, Kenosha County. One face of this beautiful specimen is handsomely oxidized in varying shades of light and dark green, the copper color of the metal showing through here and there in flecks and spots. The other is worn quite smooth, as if through long contact with the person or dress of its owner. It is provided with two perforations.

Specimens of this form, but possessing a single perforation, have been collected by Prof. Lewis at Prairie du Chien, Crawford County; Wyalusing, Grant County; Aztalan, Jefferson County; Jefferson, Jefferson County; near Madison, Dane County; Portage, Columbia County; Menasha, Winnebago County; Green Bay, Brown County, and Lake Chetek, Barron County.

3. In the H. P. Hamilton collection is a pendant of a somewhat triangular shape, from Two Rivers, Manitowoc County. It has a single perforation near the apex of the upper angle. It measures $2\frac{3}{4}$ inches along the lower edge, from which the corners project slightly, and 1 inch in breadth at the middle. (Fig. 126.)

4. In the J. E. Frisque collection are several small circular disks obtained in Scott Township, Brown County. (Figs. 127-128.) Fig. 129, with a small perforation at the center, is one of a small number said to have been obtained from a grave near

Yellow Lake, Burnett County. Similar disks, but made of shell, have been found in Ohio and elsewhere.

5. In the S. D. Mitchell collection is a small copper disk (Fig. 130) with notched or scalloped edges, from a village site in Kingston Township, Green Lake County. It has a small perforation at its center and measures about $1\frac{1}{8}$ inches in diameter. In an early number of the WISCONSIN ARCHEOLOGIST, Mr. A. Gerend described and illustrated a small copper ornament, probably a pendant, from the Black River village sites.

From a mound at Wyalusing, Grant County, Prof. T. H. Lewis obtained a small oval copper sheathed wooden gorget, having a perforation at each end. The upper side of this specimen was convex and the lower surface quite flat. A similar specimen was obtained from a mound at St. Paul, Minnesota.

The A. W. Robinson collection in the American Museum of Natural History, in New York City, contains a number of copper and brass disks obtained in Wisconsin.

Bracelets.

These have been found in various parts of the country, but few Wisconsin finds have, as yet, been reported. Individual specimens appear to vary considerably in form. That some of them may have been worn as anklets or armlets is not unlikely.

Recent bracelets of brass and silver have been found, the former sometimes in considerable numbers, in the graves and mounds of our state, as many as a dozen having been obtained from a single skeleton, confirming the well-known fondness of the Indians for this class of ornaments.

1. In the R. Kuehne collection is a simple copper circlet, probably a small bracelet, from the Black River sites. (Fig. 131.) It is somewhat square in section, less than $\frac{1}{4}$ of an inch in thickness, about $1\frac{3}{4}$ inches in diameter, and could only have been worn by a child.

An irregular circlet in the Hamilton collection, from the Two Rivers sites, which may have served as a bracelet, is $1\frac{1}{2}$ inches in diameter, the blunted ends abutting. It is of an average thickness of $\frac{1}{4}$ of an inch. (Fig. 132.)

In the J. P. Schumacher collection is a bracelet from Scott, Brown County, the historic site already mentioned. (Fig. 133.) This specimen is about $\frac{1}{4}$ of an inch in thickness, and 2 inches

across. The extremities are separated from each other by a distance of about $\frac{3}{4}$ of an inch.

2. A copper bracelet in the possession of Mr. J. G. Pickett, consisting of a simple coil of native copper, was taken from the arm of a skeleton, among a confused mass of human remains in a mound located on the eastern shore of Rush Lake, Winnebago County. One somewhat similar, in the A. and J. Gerend collection, comes from the Black River sites, Sheboygan County. The specimen illustrated in our Fig. 134 was obtained in Fond du Lac County.

In various parts of Wisconsin sheet copper bracelets, varying in width from $\frac{1}{8}$ to 1 inch, are reported to have been found, but none of these have come to the author's notice.

Dr. Cyrus Thomas mentions the finding of two copper bracelets and other ornaments of copper and silver in a Crawford County mound. (12 Ann. Rept. Bu. of Ethno., 1900, p. 51.) In the S. D. Mitchell collection, in the Pennsylvania University Museum, there is a copper bracelet from Green Lake County.

Other copper bracelets, reported to have been collected in Dane, Sauk, Green Lake, and Sheboygan Counties, are at present included in the A. W. Robinson collection in the American Museum of Natural History. Prof. Lewis has collected others in Crawford, Dane and Barron Counties.

Finger Rings.

In the past, the finding of such ornaments, in the graves and on the village sites of the state, have been frequently reported, but only a small number have come to the author's personal attention. It is quite possible that some so reported are of brass, such as appear to be of quite common occurrence in the more recent Indian graves.

The copper rings consist, for the most part, of small narrow rods or strips of the native metal bent into the form of a simple circlet, the ends abutting or nearly meeting. Occasionally the rods are thickest at the middle and taper to a point at the extremities. Some of the ornaments here described as rings may have served equally well as earrings.

In our Figs. 135 and 136 are shown two small rings of coiled copper wire, from Lake Koshkonong, Jefferson County. Similar specimens are in the Ohio State Archeological and Historical Society's collections. One in the cabinet of Mr. Rudolph Kuehne,

depicted in our plates (Fig. 137), is a plain circlet of native copper about 1-16 of an inch in thickness, and about $\frac{3}{4}$ of an inch in diameter. It comes from the extensive Black River village sites. Several similar specimens have been collected from this district.

In the H. P. Hamilton collection are several rings (Figs. 138-140), together with the bones of the fingers upon which they were worn, from the Two Rivers sites, so well known to local students. The bones are somewhat discolored by the copper. Several similar rings and fragments of others have also been found upon the sandy village sites near Belgium, Ozaukee County.

In the J. E. Frisque collection are two spiral or coiled copper rings, one of which is slightly more than $\frac{3}{4}$ of an inch in diameter. (Figs. 141-142.) These were obtained from the Scott, Brown County, sites already mentioned. Figure 143, in the same cabinet, illustrates a stage in the manufacture of one of these ornaments.

Among the author's records are outlines of several rings made of narrow strips of sheet copper. One from Jefferson County, which was at one time in the F. S. Perkins collection (Fig. 144), is $\frac{7}{8}$ of an inch in diameter and about $\frac{3}{8}$ of an inch in breadth. The finding of similar specimens elsewhere in the State has been reported. A curious ring found near Belmont, Portage County, consisted of a narrow rod of copper having both ends at the point of meeting beaten out flat. Dr. Cyrus Thomas mentions the finding of a copper finger ring in the Crawford County mound already mentioned.

Beads.

The most common Wisconsin type is somewhat spherical in shape and was fashioned by rolling together a small, narrow strip or welt of native metal, varying in thickness from less than $\frac{1}{8}$ to $\frac{1}{4}$ of an inch or more, only one or two turns of which were necessary to make a rude bead of quite large size. These have been obtained in large numbers from Wisconsin village sites, graves and, occasionally, from the mounds, frequently in company with articles of supposed more recent origin. Quantities of them, as many as one hundred or more, have been reported as coming from a single grave.

In the Milwaukee Museum collection there is a fine series of sixty-two, measuring from $\frac{1}{4}$ to $\frac{3}{4}$ of an inch in diameter, found in a grave located on the crest of a hill above Story Bros.' lime-

stone quarry, in the Menominee Valley, just west of the Milwaukee city limits. With them was a fine copper axe.

The H. P. Hamilton collection contains an equally beautiful series, thirty-seven in number, which was obtained with an interment on the sandy lake shore village sites at the above mentioned place. They vary from $\frac{1}{8}$ to about 1 inch in diameter; the largest one weighing an ounce. Their combined weight is 15 ounces. (See Frontispiece.) Some of the larger specimens composing this necklace are ornamented with indentations similar to those occurring on the blades of some copper spearpoints and knives. (Fig. 145.) This is certainly a unique feature.

A series of seventy-five smaller beads has since been found in this locality.

Some years ago Mr. S. D. Mitchell obtained from a mound at Kingston, Green Lake County, at 8 feet below the surface, a necklace of copper beads, which are reported to have been strung on a leather thong encircling the neck of a skeleton. Upon the same thong, its head bent back so as to allow it to be strung with the beads, was a small sheet copper effigy, probably intended to represent a woman. This necklace is said to be now in the Pennsylvania University Museum.

In the W. H. Ellsworth collection there were formerly a considerable number of these beads of all sizes, from Eastern Wisconsin sites. (Figs. 146-152.) Many more are in various local cabinets. A few in the A. W. Robinson collection in the American Museum of Natural History, New York, come from Crawford and Sheboygan Counties. Rev. W. M. Beauchamp mentions their common occurrence in New York State, and Prof. G. H. Perkins, of Vermont, has recorded the finding of quite a number in the Swanton graves. The author has examined specimens from Ohio, Northern Illinois, Michigan and Minnesota.

2. A second, and quite as common type, is of cylindrical or tubular form and generally of small diameter, the metal being sometimes of the thinness of paper.

They vary in diameter from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch or more, sometimes exceed 2 inches in length, and are common to the Lake Michigan shore and some inland village sites.

In the H. Geo. Schuette collection is a fine series

of thirty-one, from Two Rivers, Manitowoc County; the smallest being about $\frac{1}{4}$ and the largest $\frac{3}{4}$ of an inch in length. None are greater than $\frac{1}{8}$ of an inch in diameter. (Figs. 153-155.)

Mr. J. P. Schumacher has a number from a locality just north of Point Au Sable, Brown County. (Figs. 156-158.) One of these, Fig. 158, is of exceptional size. It is about $4\frac{3}{4}$ inches in length and $\frac{1}{4}$ of an inch in diameter. Another is $2\frac{1}{4}$ inches in length and nearly $\frac{1}{2}$ inch in diameter.

Mr. J. E. Frisque has a number, of varying sizes, found between Point Au Sable and Red Banks, Brown County, some of which are slightly curved in shape. (Figs. 159-167.) Others are in various Eastern Wisconsin collections, some being double beads. (Figs. 168-172.)

It is quite likely, as indicated by Dr. David Boyle, that some of these cylinders were sewed on to or wound into leather belts worn by the Indians.

In the 1888 Report of the Bureau of Education of Ontario (p. 49), he presents a cut of nine tubular copper beads, from a mound in Tremont Park, Tidde Island, Canada. When found, they were lying upon a piece of the original hide or leather to which they had been attached; the fine thongs, by means of which they had been sewn to the leather, being still in evidence on its under side.

Rev. W. M. Beauchamp in his recent monograph devotes an interesting chapter to a consideration of the use of copper and brass tubes in the leather belts of the aborigines. We take the liberty of reprinting from this chapter the following extract:

"Some examples of leather belts, adorned with brass tubes, have come before the writer, and, while the number of rows may vary, the same plan was followed in all New York specimens. Parallel and vertical cuts were made in the leather, in regular lines along the belt, and each division was wound with a thin piece of brass, giving a pleasing effect. Several rows of these copper or brass tubes thus encompassed the body.

"Articles of this kind would not be easily lost, or if so, easily preserved, and they can be expected only in the graves of those able to afford such ornaments. Apparently they were far from common, and but two have met the writer's eye." (Met. Orn. N. Y. Ind., p. 25.)

In his plates he figures fragments of two such belts found in New York State. Other earlier historians and writers have alluded to the use of such belts and collars by the New England aborigines or described the finding of such articles or fragments

of the same in Indian graves. There is probably little doubt that copper tubes were employed in this way by the primitive Indians of our state, but the belt material has, of course, long since disappeared, thus destroying the proofs. If strung on or wound about a thong, as has already been suggested, the copper tubes may also have been employed as earrings or bracelets, or as bangles for the ornamentation of dress fringes. A specimen in the Schumacher collection is said to have been strung on a fragment of a buckskin thong when found.

3. In the H. P. Hamilton collection are a small number of spiral cylinders, apparently formed by twisting thin sheets of the native metal between the fingers. (Figs. 173-175.) They come from the Two Rivers village sites, and are undoubtedly a distinct type. One of these, pictured in our plates, is about $\frac{7}{8}$ of an inch in length and about $\frac{1}{4}$ of an inch in diameter. We desire to learn of the existence of others, elsewhere in the state. Recent Indian beads of European brass, glass and other materials are quite common in Wisconsin.

Bangles.

On the extensive sandy Lake Michigan shore sites extending northward from Ozaukee County, and elsewhere in the eastern portion of the state, are occasionally found small objects of sheet copper, like those illustrated in our plates. They are of small size, conical or somewhat conical in shape and open at both extremities. The opinion has been frequently expressed that these may have served as bangles, probably taking the place, in the past, of the small metal disks, brass or tin cones, brass thimbles or bells with which it was the custom, among the later Indians, to ornament dress fringes or other articles of wearing apparel. Such ornaments are in the Hamilton, Frisque, and other Eastern Wisconsin collections. (Figs. 176-180.)

Ceremonial Axes.

These interesting objects, also known as banner or butterfly stones, and found in many parts of the United States, have long proven an enigma to archeologists. The now prevailing opinion in regard to them appears to be that they were mounted on staves or short wooden handles and were carried by persons in authority as badges of office on ceremonial or other occasions.

Many, differing considerably in pattern, and variously fashioned of slate, granite, porphyry and similar materials, have been recovered from Wisconsin soil and are to be seen in local cabinets.

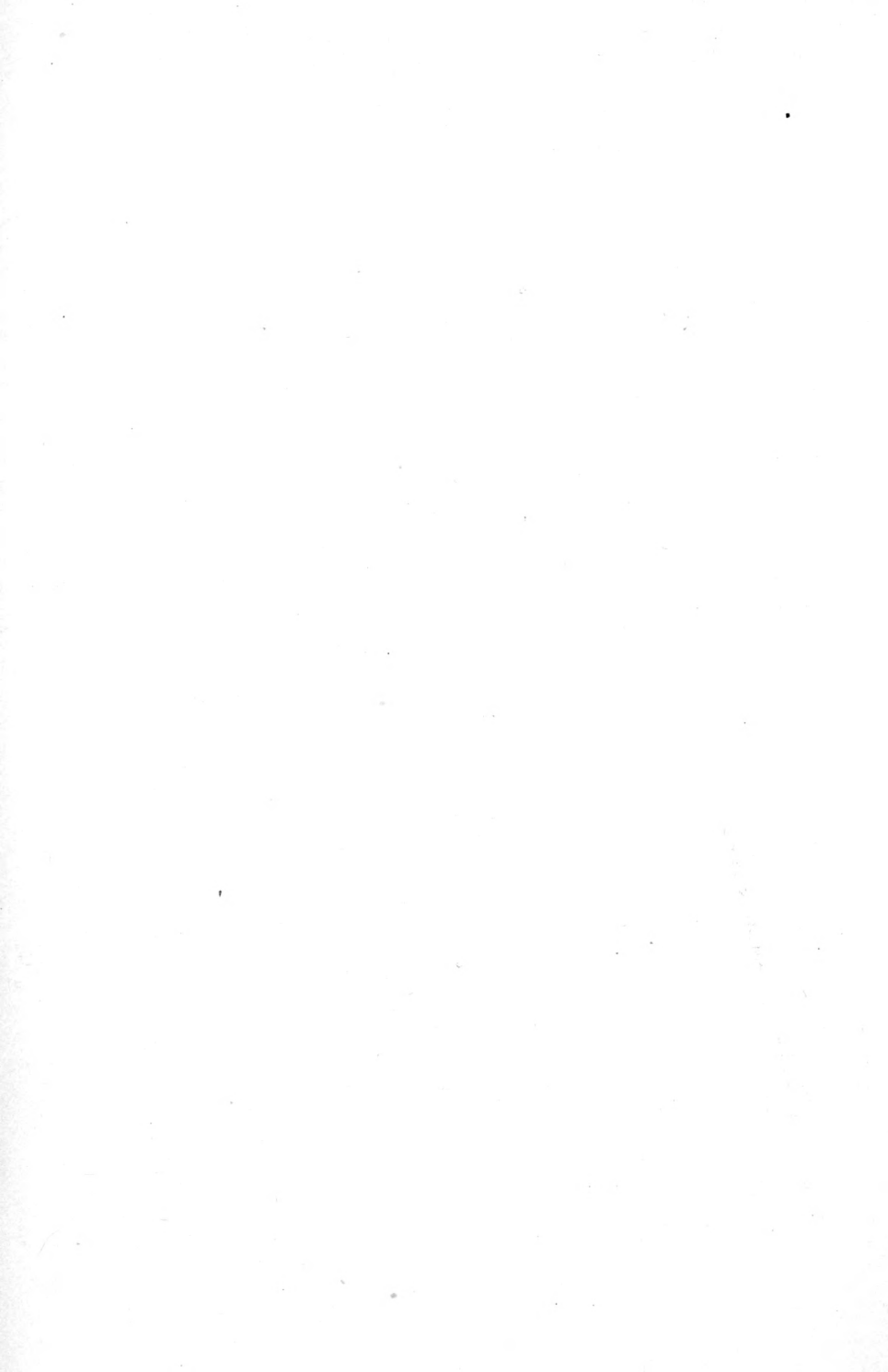
What are probably the only copper specimens of this class, as yet obtained, are in the H. P. Hamilton collection. One of these (Fig. 181), found at Oconto, Oconto County, Oct. 1, 1899, was included in a remarkable cache of copper implements and ornaments, consisting of a crescent, sword, chisel, leaf-shaped blade and arrow points, some of which have already been described elsewhere in this and our previous bulletin. This specimen, weighing 5 ounces, is $3\frac{1}{2}$ inches in length, and $1\frac{1}{4}$ inches in width across the elevated part at the middle. The broad wings are $1\frac{1}{4}$ inches in length and $1\frac{1}{2}$ inches in width across their outer edges. The perforation at the middle has a long diameter of 1 inch and a short diameter of half an inch. A second specimen in the same cabinet, weighing $2\frac{1}{4}$ ounces, comes from the same locality. It is 5 inches in length and only 1 inch in width across the widest part, near the middle. The narrow wings are $2\frac{1}{4}$ inches in length and taper to a rounded point, the perforation at the middle being half an inch in diameter. (Fig. 182.)

In the collection of Dr. H. M. Whelpley, St. Louis, Mo., among a remarkably fine series of hematite axes, celts, hammers, pendants, gorgets, pipes, cones, hemispheres, and other objects, are two hematite banner stones. Others are in the Louisiana State collection now on exhibition at St. Louis, Mo. These, and the Hamilton specimens, are the only metal banner stones at present known to the author.

EXPLANATION OF PLATES.

The Page Numbers refer to the parts of the bulletin where ornaments of this class are described. All Figures are reduced.

Figure.	PLATE 13.	Page.
101.	Marquette, Green Lake County, diameter 1 $\frac{3}{8}$ inches, S. D. Mitchell Coll.....	104
102.	Prairie du Sac, Sauk County.....	104
103.	Calumet County.....	104
104.	Point Au Sable, Scott, Brown County, diameter 1 $\frac{3}{8}$ inches, J. P. Schumacher Coll.....	104
105.	Dollar Bay, Houghton County, Mich., length 6 $\frac{1}{4}$ inches, J. T. Reeder Coll.....	107
106.	Two Rivers, Manitowoc County, length 3 $\frac{3}{8}$ inches, formerly in W. H. Ellsworth Coll.....	107
107.	Wisconsin, length 3 $\frac{1}{2}$ inches, formerly in W. H. Ellsworth Coll.....	107
108.	Farmington, Washington County, length 4 inches.....	107
109.	Black River Sites, T. Wilson, Sheboygan County, length 2 $\frac{3}{4}$ inches, R. Kuehne Coll.....	107
110.	Marquette County, length 4 inches, F. M. Benedict Coll.....	107
111.	Monroe County, length 2 $\frac{3}{8}$ inches.....	107
112.	Green Lake, Marquette County, S. D. Mitchell Coll.....	108
113.	Two Rivers, Manitowoc County, H. P. Hamilton Coll.....	108
PLATE 14.		
114.	Menominee River, Menominee, Mich., length 8 inches, Field Museum Coll.....	109
115.	Farmington, Waupaca County, length 5 $\frac{3}{8}$ inches, F. M. Benedict Coll.....	109
116.	Rush Lake, Nepeuskun, Winnebago County, length 4 $\frac{1}{2}$ inches, J. G. Pickett Coll.....	110
117.	Waukesha County, length 3 $\frac{1}{2}$ inches.....	110
PLATE 15.		
118.	Rhine, Sheboygan County, Milwaukee Public Museum.....	110
119.	Maple Grove, Manitowoc County, length about 6 $\frac{1}{2}$ inches, Dr. Louis Falge Coll.....	111
120.	Lake of the Woods (Minn.) Coll.....	112
121.	Scott, Columbia County, breadth 7 $\frac{1}{8}$ inches, W. H. Elkey Coll.....	112
PLATE 16.		
122.	Daley's Island, Marquette County, length about 4 $\frac{1}{2}$ inches, W. H. Ellsworth Coll.....	111
123.	Rush Lake, Nepeuskun, Winnebago County, length 3 $\frac{1}{2}$ inches, J. G. Pickett Coll.....	113
124-125.	Portage Entry, Lake Superior, length 2 $\frac{3}{8}$ and 2 inches, J. T. Reeder Coll.....	114
126.	Two Rivers, Manitowoc County, length 2 $\frac{3}{4}$ inches, H. P. Hamilton Coll.....	114
127-128.	Scott, Brown County, diameter $\frac{5}{8}$ and $\frac{3}{8}$ inches, J. E. Frisque Coll.....	114
129.	Yellow Lake, Burnett County.....	114
130.	Kingston, Green Lake County, diameter 1 $\frac{3}{8}$ inches, S. D. Mitchell Coll.....	115
131.	Black River Sites, T. Wilson, Sheboygan County, diameter about 1 $\frac{1}{4}$ inches, R. Kuehne Coll.....	115
132.	Two Rivers, Manitowoc County, diameter 1 $\frac{1}{2}$ inches, H. P. Hamilton Coll.....	115
133.	Scott, Brown County, J. P. Schumacher Coll.....	115
134.	Fond du Lac County.....	116
PLATE 17.		
135-136.	Lake Koshkonong, Jefferson County.....	116
137.	Black River Sites, T. Wilson, Sheboygan County, R. Kuehne Coll.....	117
138-140.	Two Rivers, Manitowoc County, H. P. Hamilton Coll.....	117
141-143.	Scott, Brown County, J. E. Frisque Coll.....	117
144.	Jefferson County.....	117
145.	Two Rivers, Manitowoc County, H. P. Hamilton Coll.....	118
146-152.	Eastern Wisconsin, formerly in W. H. Ellsworth Coll.....	118
153-155.	Two Rivers, Manitowoc County, H. Geo. Schuette Coll.....	119
156-158.	Near Point Au Sable, Scott, Brown County, J. P. Schumacher Coll.....	119
159-167.	Scott, Brown County, J. E. Frisque Coll.....	119
168-172.	Eastern Wisconsin Collections.....	119
173-175.	Two Rivers, Manitowoc County, H. P. Hamilton Coll.....	120
176-180.	Eastern Wisconsin, Hamilton, Ellsworth and Frisque Coll.....	120
181-182.	Oconto, Oconto County, H. P. Hamilton Coll.....	121



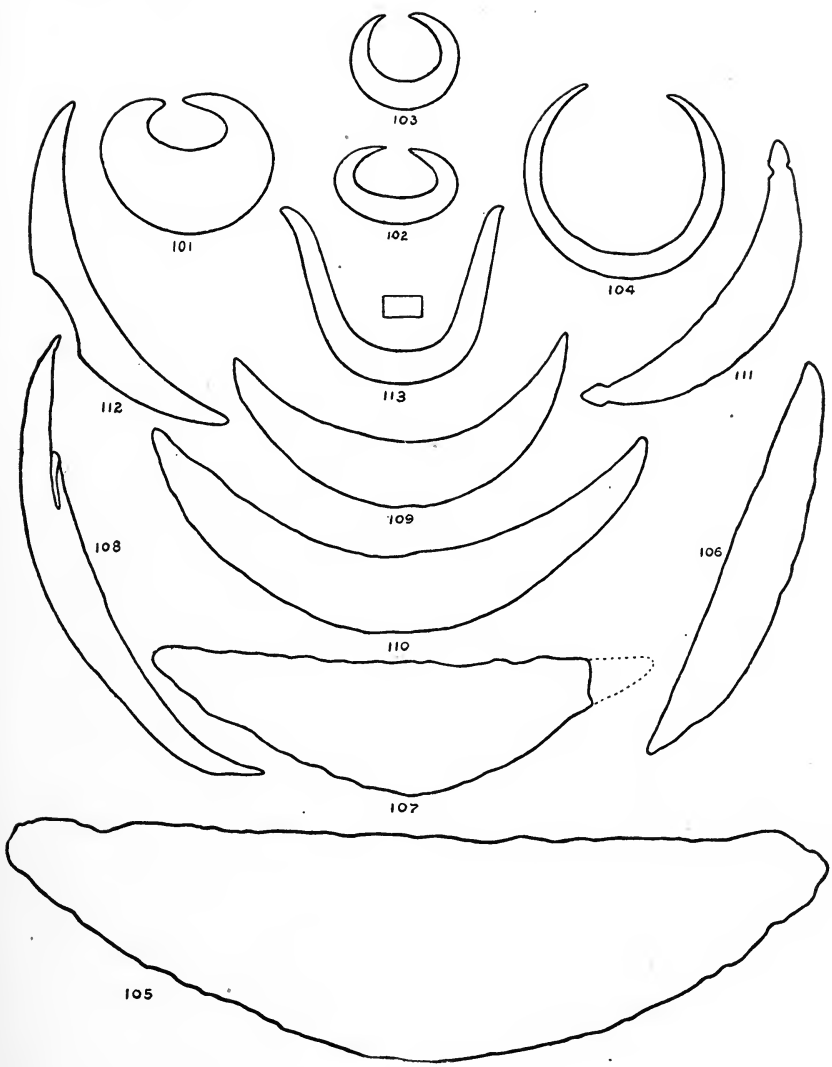


Plate 13.
Crescents and Earrings.

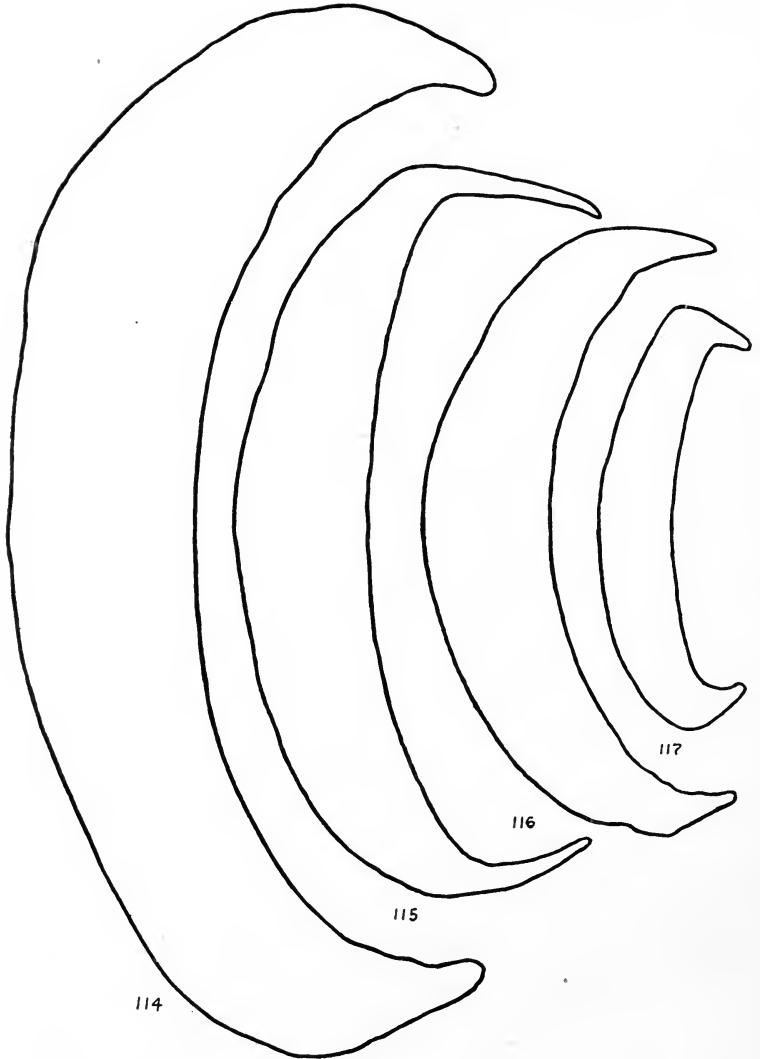


Plate 14.
Crescents.

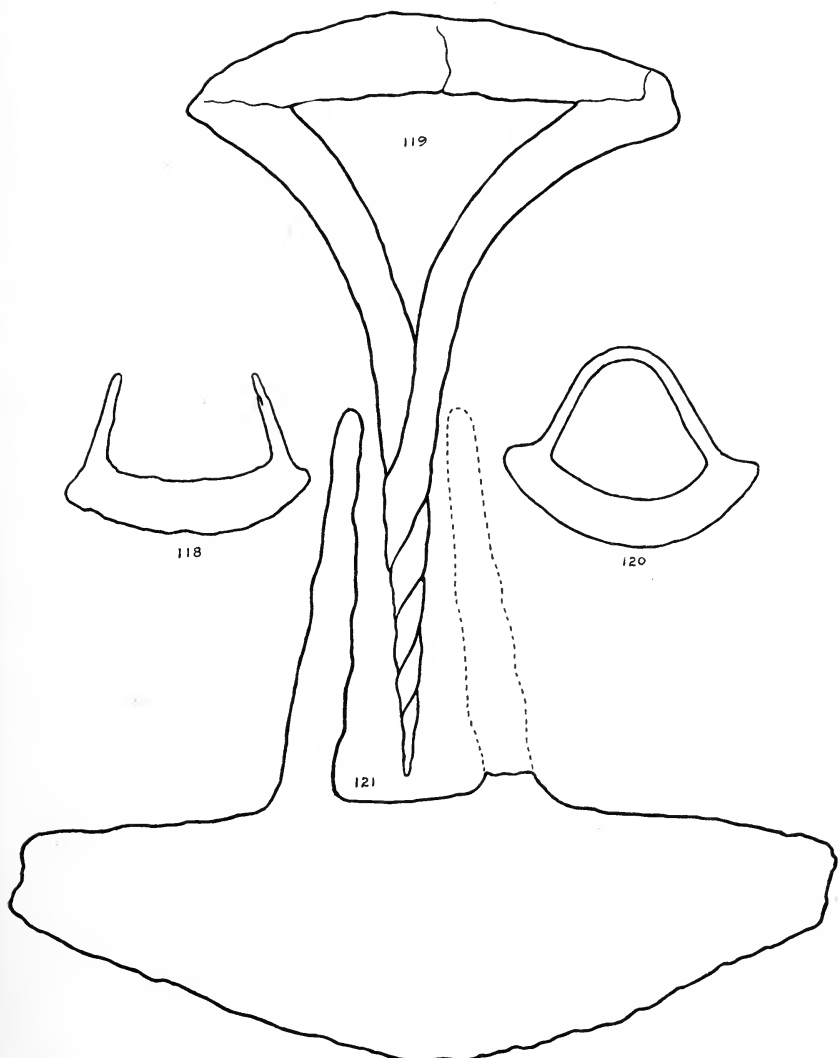


Plate 15.
Crescents.

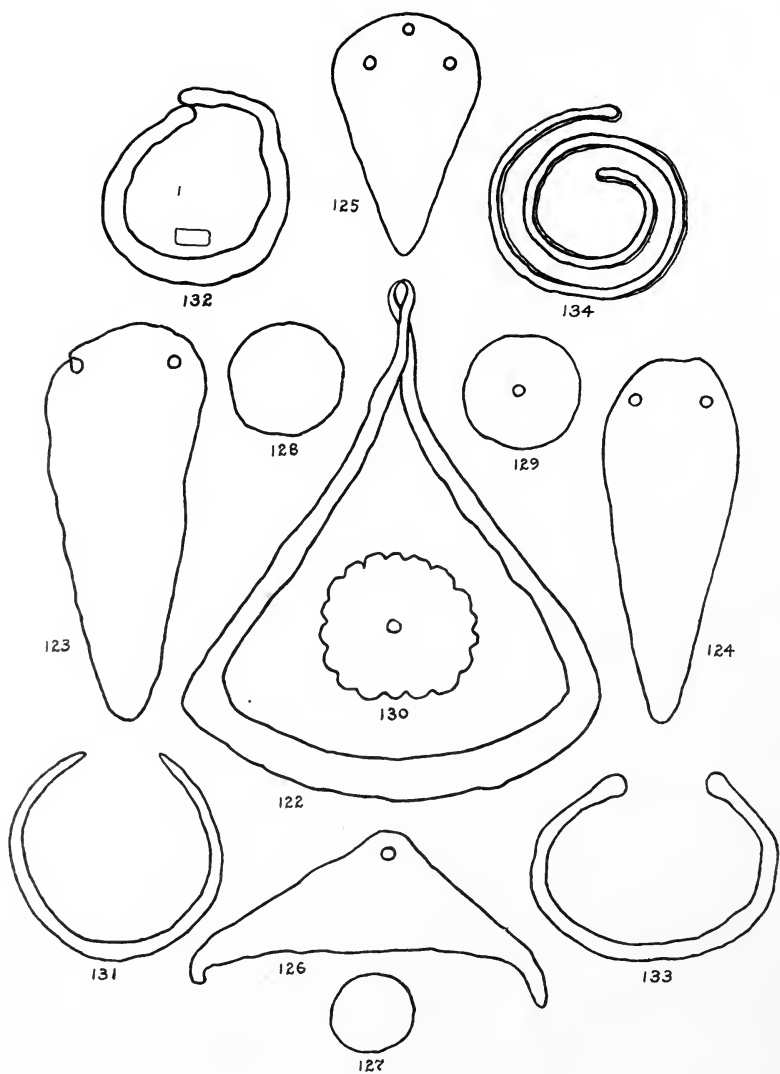


Plate 16.
Gorgets, Pendants and Bracelets.

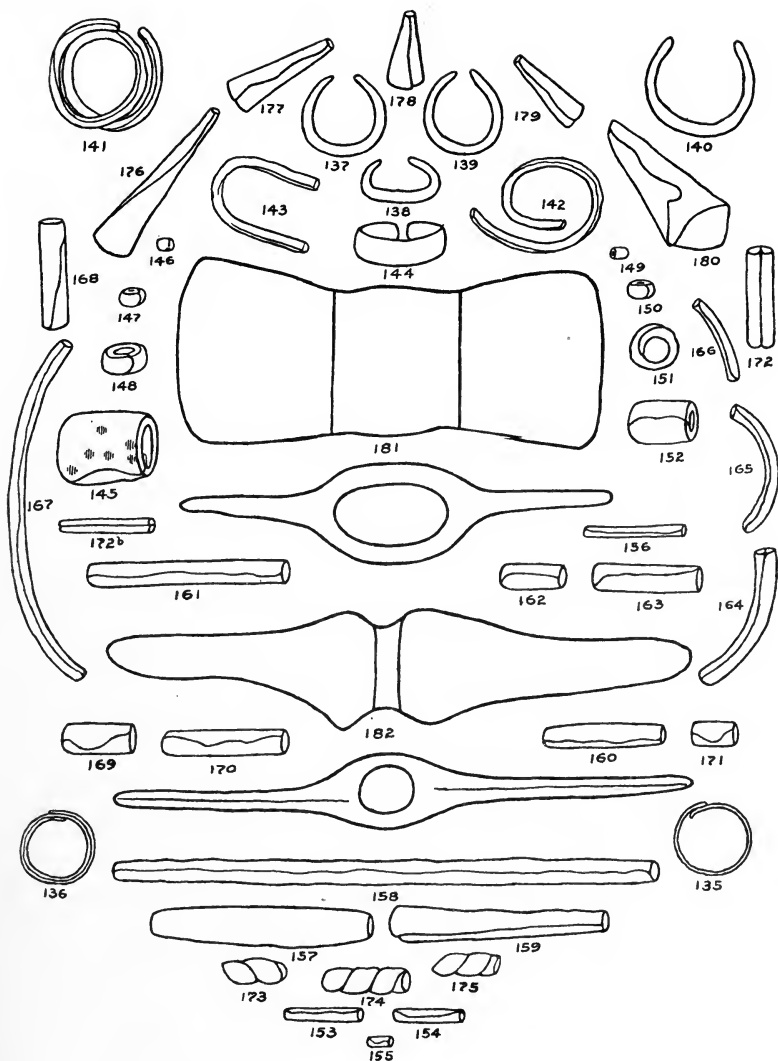
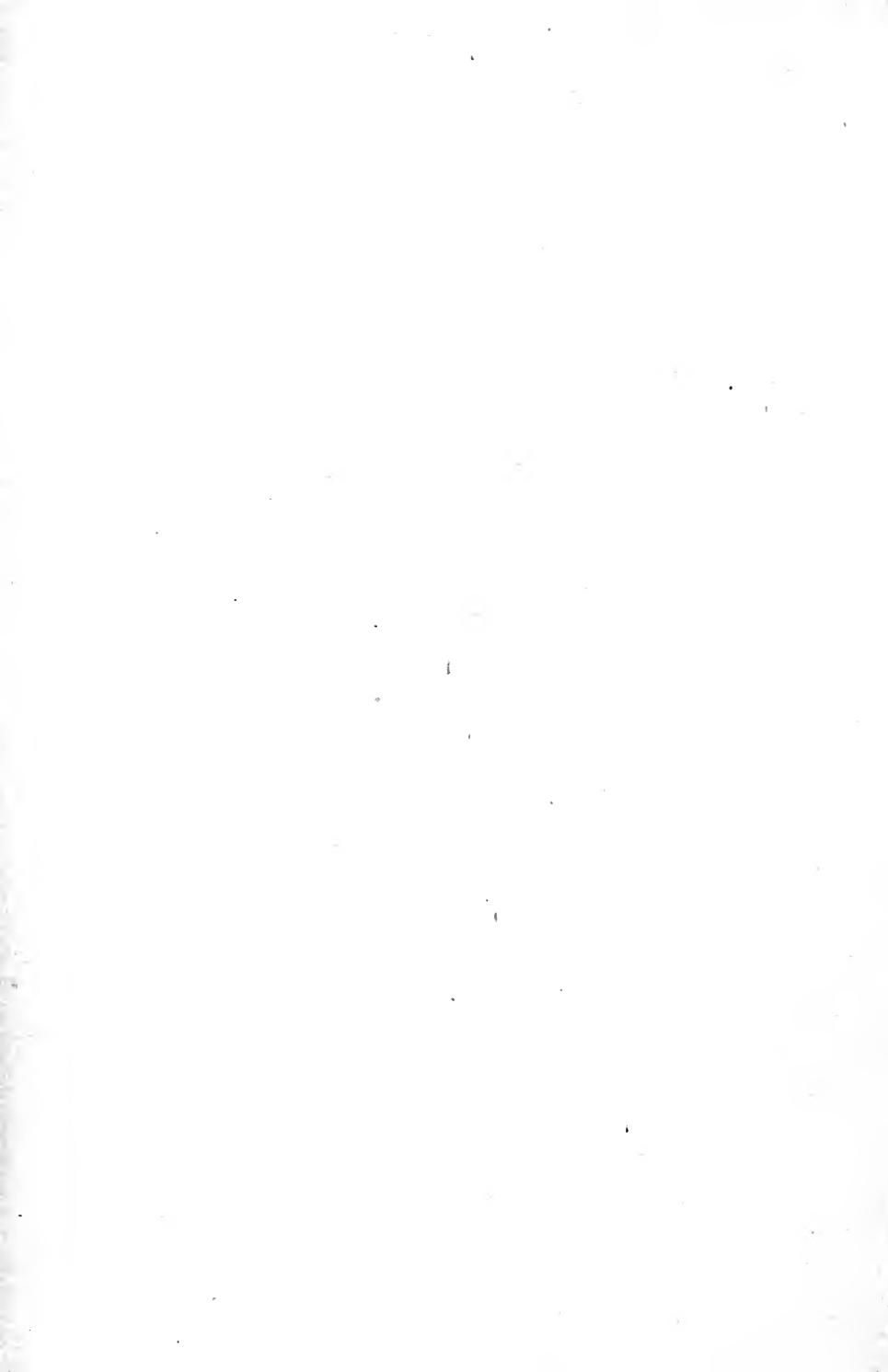


Plate 17.

Banner Stones, Rings, Beads and Bangles.



Wisconsin Archeological Society.

MILWAUKEE, WIS.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities.



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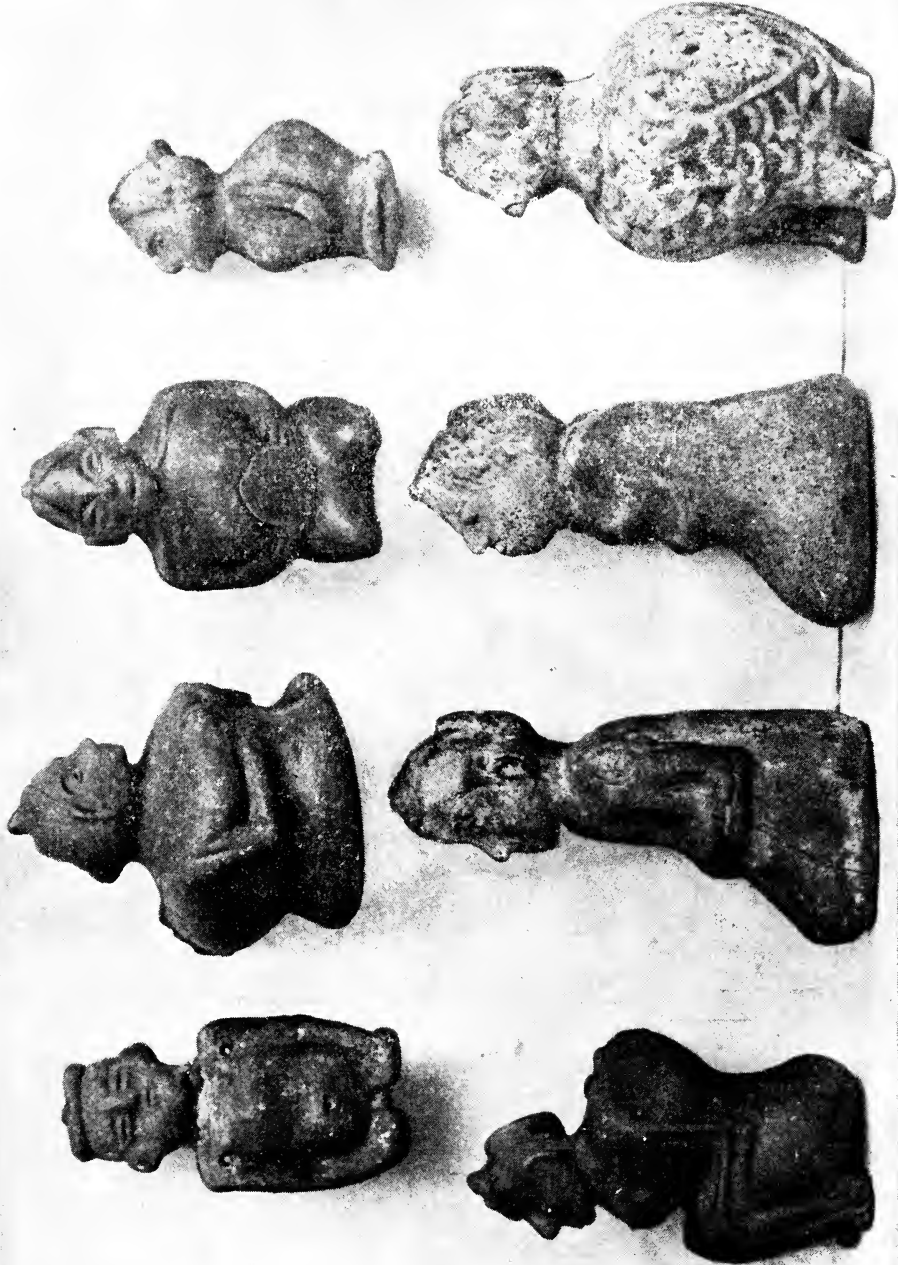


PLATE I.
Images of Terra Cotta, from Graves, Thurston Collection (one-third size.)

THE WISCONSIN ARCHEOLOGIST

A QUARTERLY BULLETIN PUBLISHED BY THE WISCONSIN ARCHEOLOGICAL SOCIETY.

Vol. 3.

MILWAUKEE, WIS., JULY, 1904.

No. 4.

Tennessee Archeology at St. Louis.—The Thruston Exhibit.

BY G. P. THRUSTON.

The following very interesting contribution to North American archeological literature from the pen of the well known archeologist and historian, Gen. Gates P. Thruston, President of the Tennessee Historical Society, was written at the special request of the Board of Directors of the Wisconsin Archeological Society. To those of our members who visited the fine exhibits in the Anthropology building at the Louisiana Purchase Exposition at St. Louis, this description of the splendid Thruston Tennessee collection will particularly appeal. We are greatly pleased to note that since the printing of this manuscript both the author and the Tennessee collection have been very deservedly awarded gold medals of merit by the World's Fair Directors.

CHAS. E. BROWN, Sec'y

The small exhibit from middle Tennessee in the Anthropological Department of the Louisiana Purchase Exposition was placed there to give archæologists and collectors an opportunity of seeing some of the rare and unique specimens of flint and pottery found in that favored section. Owing to the limited space allotted to the exhibit (two small cases) the writer was not able to show some of the larger types of pottery, a series of idols of stone, and many rare objects of stone, terra cotta, copper, shell, and bone.*

It is difficult to give a just impression of a large collection in so limited a space, but doubtless archæologists who have not seen some of these unusual types will find the exhibit of interest.

Some fifteen years ago a prehistoric cemetery of great extent was discovered upon Brown's Creek, on the fine Noel farm, a part of the battlefield of the great battle at Nashville, about five miles from the city.

There were probably three thousand graves in this ancient burial ground. The mortuary remains were deposited in rude stone cists, or sarcophagi, constructed of large flat stone slabs, thus sealing them up, and protecting them from the waste of time through a series of centuries. When opened they yielded a rich store of archæological treasures to the explorer. By persevering search and the aid of assistants, I was able to obtain the greater

NOTE.—There are a few fine types of stone in the exhibit from the Tennessee Historical Society, and the Hicks Collections at Nashville, but more than nine-tenths of the objects are from the writer's collection.

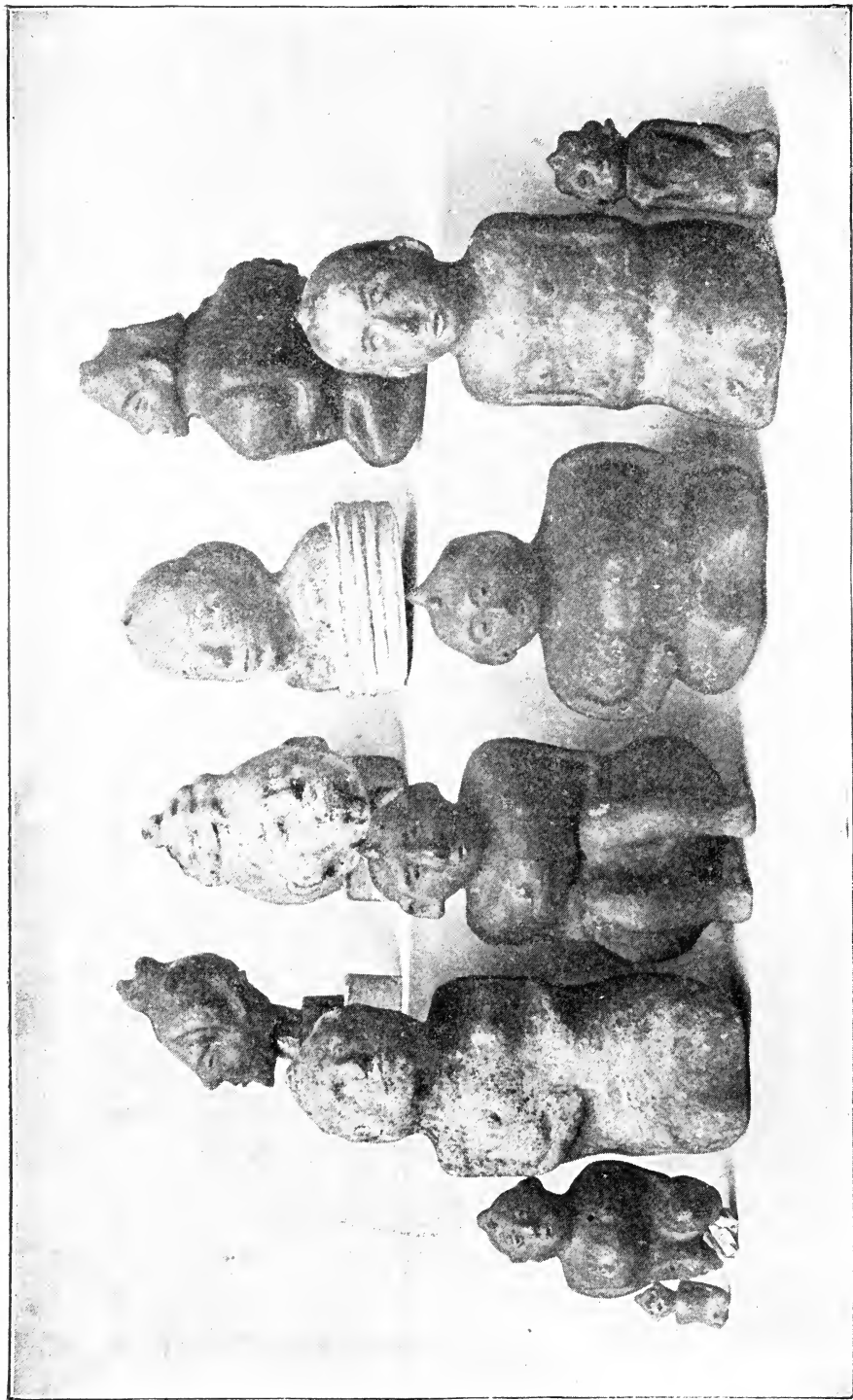


PLATE II.
Images of Terra Cotta, from Graves, Thurston Collection (one-third size.)

portion of the contents of the cemetery, including some 800 perfect vessels of pottery, thirty or forty images, or idols, and a most interesting collection of implements, ornaments, discs, pipes, and other objects illustrating the life of the so-called "Stone grave race," the ancient inhabitants of Tennessee.

With a pointed iron rod we could discover the stone coverings of the cists, and locate each grave almost as accurately as if we were exploring a modern cemetery marked with head-stones.

Nearby, or adjoining this prehistoric burial ground, there must have been, centuries ago, an extensive aboriginal settlement, doubtless the metropolis or trading center of the very large native population that once inhabited that section. We are told by the early travellers in America, that its native races were widely distributed and not numerous, yet at some early period there must have been a vast population in the fertile valley of the Cumberland River, also in the valleys of the Scioto, Miami, and Muskingum rivers, in Ohio, and other sections of the mound district.

The ancient stone grave cemeteries within a radius of forty miles from Nashville must have contained not less than forty to fifty thousand graves. More than half that number have been explored and ransacked by archeologists and relic hunters. At least ten thousand of them have been carefully and systematically opened by Dr. Joseph Jones, Dr. F. W. Putnam, the writer, and other painstaking investigators. Nearly one-half of the graves contained some object of interest. About one-fourth of them contained one or more vessels of pottery. It was a fascinating search. The laborers with pointed iron rods located the graves and carefully uncovered the stone lids; then the expert, down on his knees with hand trowel and knife, proceeds to investigate further and to examine the contents. Nearly all the stone cists were filled with earth by infiltration. A few, however, were so carefully constructed that the remains were found almost in their original condition, saving the waste of years, and the happy investigator was occasionally rewarded by finding the skeleton laid bare, the shell gorget on its breast, the beads around the bones and arms, the finely wrought earrings beside the head, the coveted bowls and flint implements beside the hands—all in their original places, without the labor and danger of searching in the damp, packed earth for them. In accordance with the ancient and modern mortuary customs of the native races, we found in the vessels, maize or some provision for the journey to the spirit land, and beside

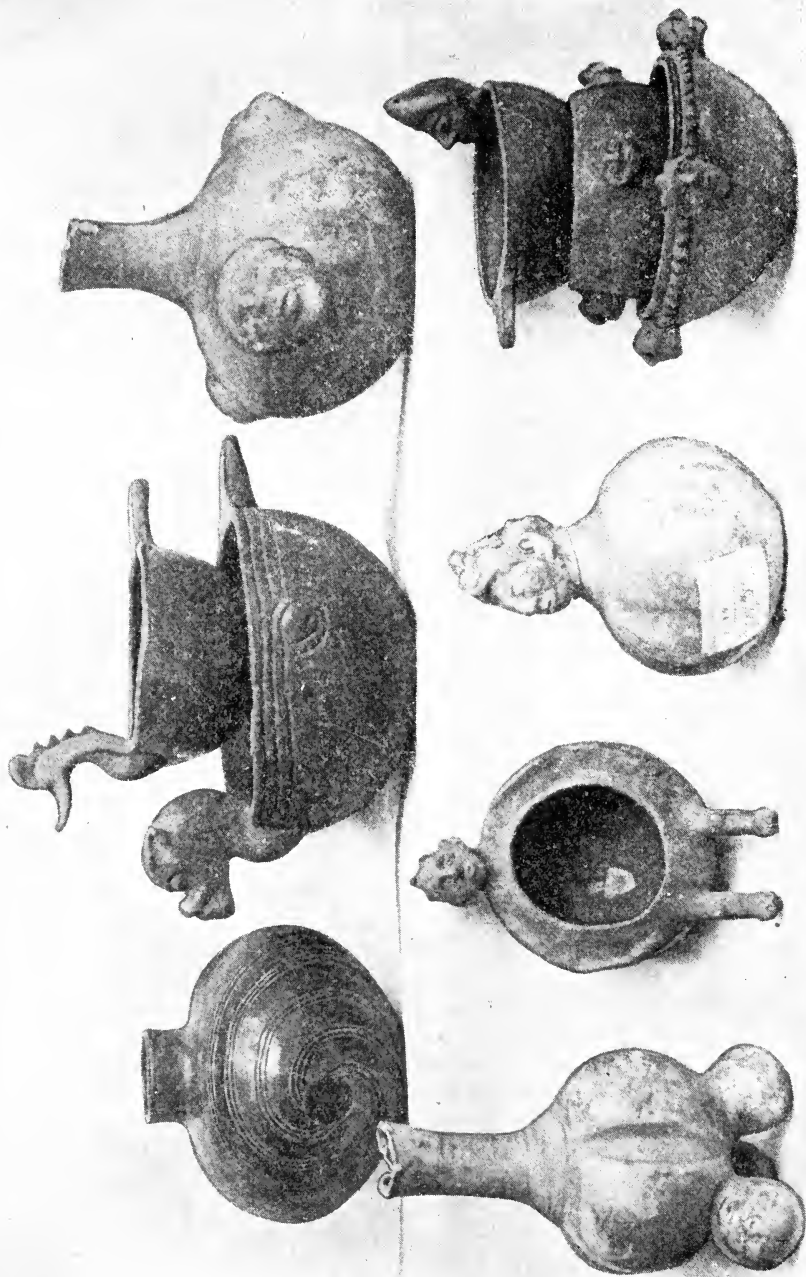


PLATE III.
Bowls and Vessels from Graves, Thurston Collection (one-fourth size.)

the bowls were the carefully made shell spoons that were to feed the travellers on their way.

Some of the pottery found was made with considerable artistic taste. It is symmetrical in form, and is ornamented with fine types of the human head and face and with various animal figures. Many of the pieces were fashioned like the grotesque pottery types of Peru and Central America, and were painted and decorated in several colors. Finely ground red mineral paint from the graves will be found in the exhibit. In the pottery section almost every animal known to the natives was imitated. I think it will be found that the terra cotta and pottery ware exhibited has a finer finish and is more artistic in form than most of the specimens from other sections of the mound area. Many of the vessels are as exact and symmetrical in form as if turned upon a modern potter's wheel.

Prof. W. H. Holmes, Director of the Bureau of Ethnology at Washington, illustrated many of these fine specimens of pottery in his beautiful and elaborate work on the "Pottery of Ancient America," recently published, and compliments the writer's collection of ancient pottery by stating that it is "unrivaled." (See Plates III and IV.) The large trading settlement near Nashville had probably remained in the beautiful valley of Brown's Creek through a series of centuries, and this very naturally led to some progress and advancement in the manufacture of pottery ware, stone implements, and the various utensils of shell, copper, and bone used in the domestic life of the community.

The pottery trowels for making ware of clay and for finishing the clay-plastered houses of the large town, the sets of bone implements found, the various assortments of stone implements for mechanical uses, and the beautiful ornaments of copper, shell, and stone all, I think, indicate a state of society in advance of the smaller settlements found in most other sections of the mound area, and certainly somewhat in advance of the status of the historic Indian tribes discovered by the early pioneers upon our American frontier.

Dainty little flint implements, children's sets of pottery ware, toys and rattles, sharp knives with stag-horn and bone handles, earrings of terra cotta and stone most artistically plated with hammered native copper from far Lake Superior, necklaces and bracelets of beautiful beads, and finely engraved breastplates of

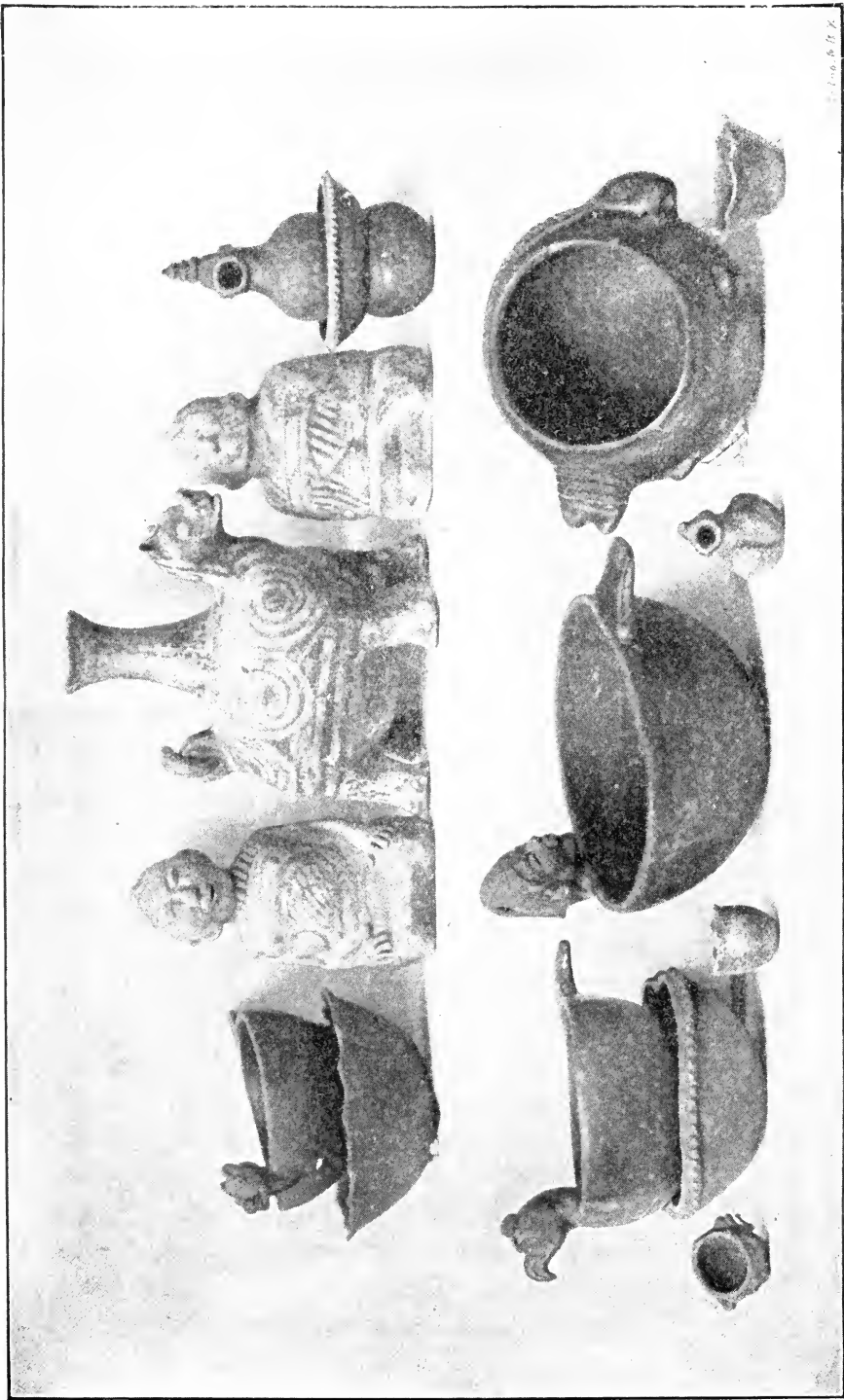


PLATE IV.
Vessels and Images of Pottery, Thurston Collection (one-fifth size.)

shell and copper were all among the treasures of the Brown's Creek cemetery.

The pipes of catlinite, or red clay-stone from western Minnesota, flaked arrow points of obsidian from Mexico or the far west, vessels and ornaments made from marine shells, objects made of stone from remote sections—all indicate that this ancient Tennessee town was the center of a widely distributed trade and interchange of commodities. Quite a number of well-made images or idols of terra cotta and stone will be found in the exhibit, some of them dainty little statuettes. They doubtless represent with considerable accuracy types of the faces and forms of the prehistoric tribes, whose interesting remains are found in the stone graves. Some of them of black and deep red color are so skillfully executed that they look like Egyptian figurines and show the types of the ancient faces and head-dresses quite perfectly. (See Plates I and II.) More images and idols of stone have been found within the limits of Tennessee than in any other section north of Mexico. Col. C. C. Jones, of Georgia, stated that "Tennessee of all her sister states seems to be most prolific of them." A number of these images are very large and are fairly well sculptured, suggesting the ruder class of Mexican images. Unfortunately there was not space for them in the exhibit.

A small but excellent collection of stone and clay pipes will be found in the cases, mainly from the Nashville district. The large bird and animal forms are a specialty of Tennessee and some of the adjacent states. Two or three of the pipes are made of red clay-stone from Minnesota. Two beautiful idol-shaped specimens are from the large Etowah mound at Cartersville, Georgia, and the finely sculptured and ornamented "panther pipe" is from the well-known Carthage mound, near Tuscaloosa, Alabama.

There are three small pipes of the tube form, one of them shaped like a cigar-holder and of deep red color. These specimens seem to me of special interest, as they are identical in form with the cliff-dweller and California types, and indicate some ancient intercourse or connection between these distant sections.

The series of pottery and plastering trowels in the exhibit is quite complete. I believe the larger trowels have not been discovered in other sections. The little trowels were used by the old pottery makers in fashioning and moulding the smaller vessels. The large flat-faced trowels we at first supposed were implements for crushing corn or smoothing hides. Finally we discovered

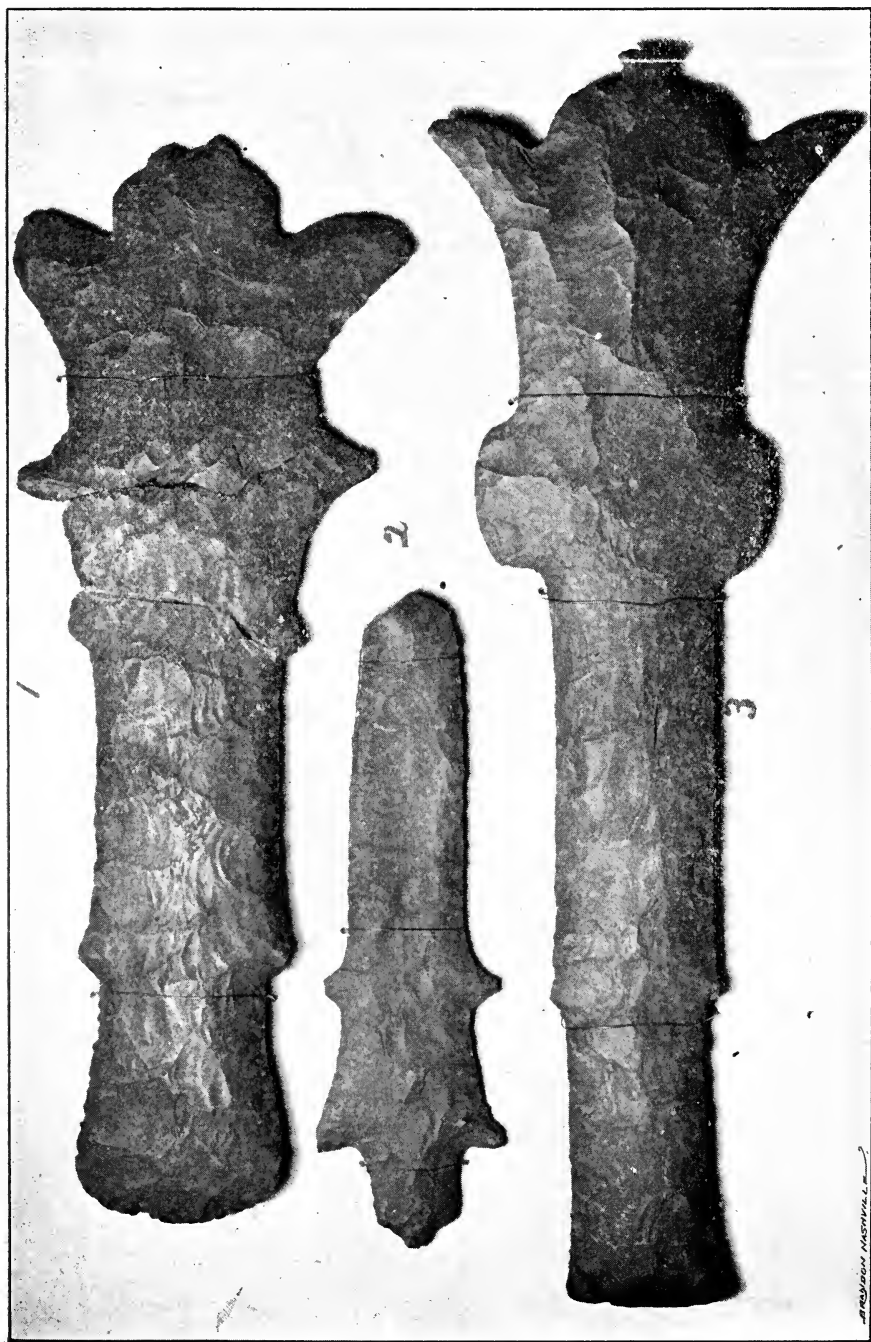


PLATE V.
Flint Maces or Ceremonial Implements, Thurston Collection (two-fifths size.)

five of them in one grave. They were burned as hard as stone. There were two pairs of the same size, and their flat surfaces were all covered with a coating of fine clay, showing that they were used in some class of work in clay.

The chroniclers of De Soto and other early travellers in America tell us that some of the tribes discovered in the interior lived in clay-plastered houses constructed with considerable skill. Some of the houses of the advanced settlement near Nashville must have been well and securely built, judging from the valuable domestic wares and implements they must have contained. It seems clear that this fine set of plastering trowels, found in one grave, indicates that its aboriginal owner followed the *trade* of a plasterer and worked upon the houses of this large town near Nashville. It is by no means strange that in the moist and changeable climate of Tennessee these well-built houses of clay and adobe, with wooden frame-work and supports, should have crumbled and dissolved into their original clay during the centuries that have elapsed since their occupation.

The rare types of flint, jasper, and argellete exhibited will attract attention. Many of these forms have never been discovered elsewhere than in middle Tennessee. The flint maces are certainly unique, as are the flints in the form of hooks, or sickles, and the double claw or pincher specimen. Strange to report, the greater number of them were discovered within a limited area in Humphreys County, Tennessee, near the town of Waverly, west of Nashville. The beautiful series of these rare flints in the exhibit of the Missouri Historical Society was also found in the same prolific section. One of them is nearly as long and narrow as a yard stick, and all of them are marvels of flint-chipping. These fine flints are not surpassed by the best Mexican or Scandinavian types, either in the beauty of the material or the skill exhibited in their manufacture. Some prehistoric old flint-chipper of the Waverly district must have devoted his life and genius to the tedious work of manufacturing these beautiful specimens.

I have carefully examined the flint forms and implements in the museums of England, France, Germany, and Switzerland. They show no stone chipping work superior to these rare Tennessee types, and none of these peculiar forms.

Mr. Henry C. Mercer, the intelligent representative of the United States Commission at the Columbian Exposition at Madrid, Spain, in his excellent published report, states that the finest

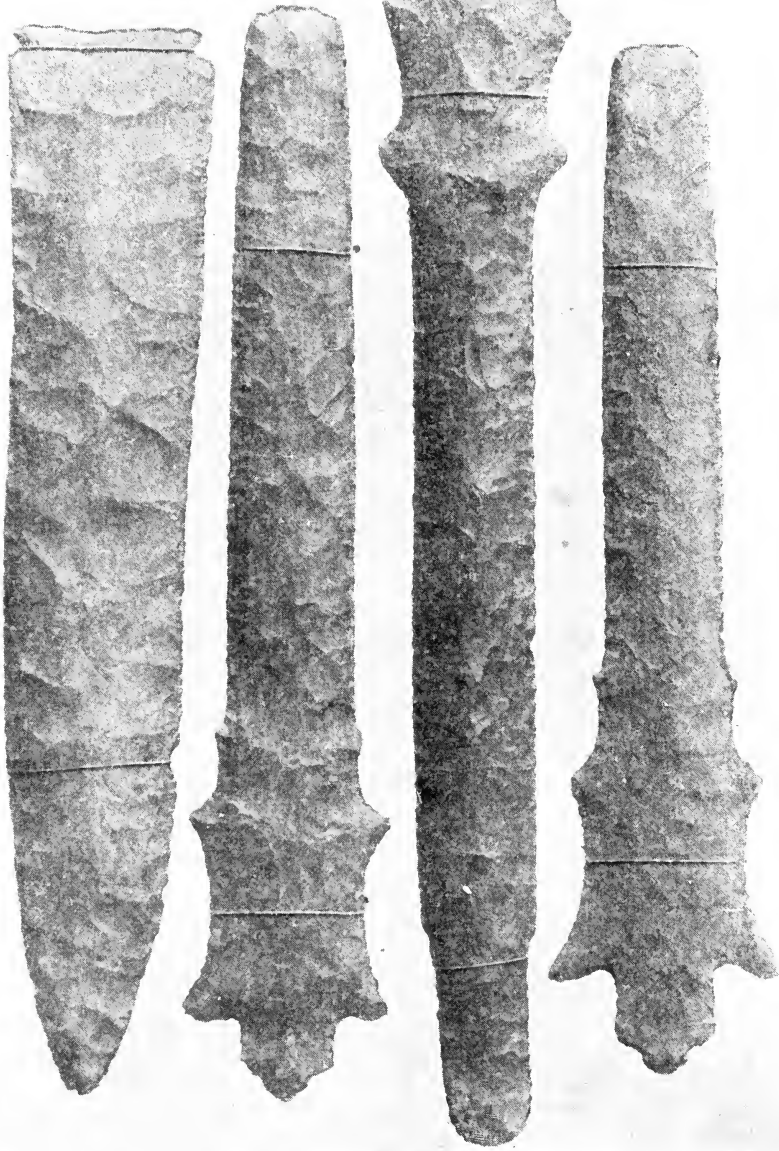


PLATE VI.
Ceremonial Flint Implements, Hickories and Tennessee Historical Society Collections (one-third size.)

Mexican types of flint-chipping, and of obsidian knives and spears, did not surpass in workmanship the fine specimens of flint and jasper illustrated in "Thruston's Antiquities of Tennessee." I think, therefore, we are justified in claiming that the fine flint types and forms of Tennessee are equal to any other prehistoric objects of flint yet discovered in America or elsewhere.

Some of these rare ceremonials of flint have been found in the graves in the skeleton hands of the ancient chieftains or rulers of the stone grave race. The purpose for which they were probably used, and the use of the symmetric and finely chipped maces, are well shown by an engraving skillfully executed upon a shell breast-plate discovered near Nashville.



Figure 1. Myer shell gorget, Sumner County, Tenn. Natural size.

The old warrior or priest, adorned with elaborate insignia of his office, is holding in one hand the head of some unfortunate victim of the altar, or battlefield, and in the other hand is holding aloft one of these flint maces, outlined upon the engraved shell in the very exact and peculiar form of one of these beautiful chipped maces. (See Plates V, VI, and Figure 1.) The mace was discovered in southern Kentucky, not far from the mound north of Nashville in which the engraved shell was found.

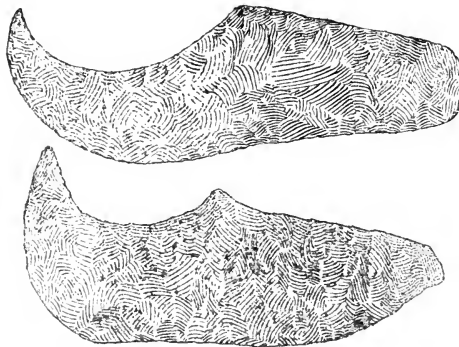


Figure 2. Chipped stone hooks, Thruston collection (one-third size.)

The flint sickles or hooks (Fig. 2) are also a specialty of the Nashville district, and I believe are unknown elsewhere. The double claw (Fig. 3) is a unique beauty. These curious objects were perhaps the totems or ceremonial implements of some ancient clan or tribe. I find that the crayfish, or crawfish, was the totem

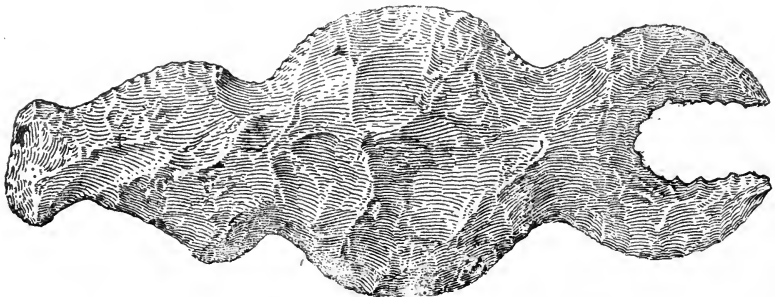


Figure 3. Chipped stone claw, Hicks collection (one-third size.)

or emblem of one of the clans of the ancient Choctaws, and probably these old stone claws may have been used by them as ceremonial objects representing the family insignia.

The large leaf-shaped and hoe-shaped specimens in the exhibit are unsurpassed. I have never seen the equal of that splendid mammoth piece about 5 inches wide and some 20 inches long. (See Plate VII.) It would also be difficult to duplicate the series of large and small polished stone discs outside of the Tennessee district. They abound in the valley of the Cumberland River. Captain Johnson, a travelling relic hunter and dealer of Kentucky, came into my office at Nashville one day with some thirty beautiful stone discs in a bag on his shoulder. Many of them were almost pure translucent quartz and beautifully executed. He had paddled down the Caney Fork of the Cumberland River in a small canoe and traded for them and gathered them from the farm houses on his way. I was quite envious of him, and felt like charging him with robbing and carrying off the jewels of the state.

Some of the little discs or spindle wheels, or whorls, as we call them, are exquisite both in material and form. No modern turning lathe could make them more perfect or symmetrical. The polished stone tubes or dial formed object, and the long polished ceremonials that suggest the form of the spade, are also specialties of Tennessee and southern Kentucky.

Doubtless the old priests or chieftains of the stone grave race, dressed in their tribal regalia, upon public occasions held aloft with dignity some of these old maces and ceremonials, and with barbaric pride displayed the peculiar totems, engraved breast-plates and tribal regalia exhibited in the collection.

The questions naturally arise in the mind of the reader or investigator: *Who were these ancient Tennesseans of the stone grave tribes? And what was their ethnic status in the scale of civilization?*

I have considered this general subject at considerable length in the "Antiquities of Tennessee and the Adjacent States," also in the same work I have discussed the relation of the stone grave Indians to the historic Indians and to the tribes of the Pueblos. My book published a few years ago is in fact a series of ethnological and historical studies of ancient life in America, with a view to ascertaining the status of these old Tennessee tribes in the ethnic scale.



PLATE VII.
Agricultural or Mechanical Implements, Thruston Collection (one-third to one-fourth size.)

The remarkable treasures from stone graves of the Cumberland and Tennessee valleys illustrate their domestic life with considerable exactness. They unravel many secrets that the more imposing monuments and remains of the native races have failed to disclose. They afford a wealth of material and an inviting field for investigation. There is in fact no portion of the Mississippi valley where the arts and industries of its ancient inhabitants can be studied with the hope of a better reward.

Although their remains indicate that the culture of the stone grave tribes was essentially primitive and Indian, it seems clear that these industrious and progressive people reached a stage of civilization somewhat in advance of the historic Indians of our American frontier. I think they should be classed in the ethnic scale, with sedentary and village Indians of New Mexico and Arizona. They probably reached as advanced a state of development along certain lines of progress as any of the native tribes within the present territory of the United States. The temperate climate and fertile soil of ancient Tennessee favored development. The struggle for the necessities of life was not so severe as in a more northern environment.

The primitive arts and industries represented by the remains found in the stone graves seem in the main of indigenous growth, but there must have been some ancient connection or intercourse between the mound-building tribes of the Mississippi Valley and the ancient inhabitants of New and Old Mexico, if we consider the many identities and connecting links found among the remains in Tennessee and elsewhere within the mound area.

Some of the engravings upon the shell breast-plates of Tennessee are almost duplicated upon the discs of shell found in Mexico. A little polished "banner stone" from middle Tennessee, to be seen in our exhibit, is beautifully engraved with the endless key pattern, identical in design with the ornamental paintings on the ancient pottery from the Moqui Pueblos, and with the familiar design upon the "Governor's House" at Uxmal in Central America.

The grotesque forms of the pottery found in the graves also strongly remind one of the forms of the pottery of Central America and Peru. The occasional flakes or arrow points of obsidian found in Tennessee also favor this view.

The humble and industrious villagers of the Cumberland Valley may have had the same racial ancestry as the pottery makers

of the Pueblo districts in the far west, who lived upon the headwaters of the rivers that flow from New Mexico down into the territory of the old pottery makers of Arkansas and Missouri,—evidently the near kindred of the pottery makers of Tennessee. The mound builders of southern Ohio were probably a branch of the same racial stock.

There were numerous settlements or centers of the stone grave tribes in middle and east Tennessee and southern Kentucky and Illinois. Their scattered remains give us but a meagre history of their growth, career and disappearance. The accumulation of a numerous population in favored centers, and their progress toward civilization, were probably the results of long periods of repose and peace, that enabled certain tribes, like the stone grave Indians, to remain in permanent locations and pursue for centuries more peaceful methods of life than some of their more restless and nomadic neighbors. These periods of peace and advancement were probably succeeded by years of wars, invasions, migrations, absorbtions, or changes which arrested the limited development in the arts of civilization, destroyed the beginnings of progress, and led to disintegration and decay, a fate so characteristic of aboriginal life in America.

The history of the North American Indians is a pathetic story. It seems a mysterious Providence that during the many centuries of life upon this rich continent, they made such slow and uncertain progress toward a better state. It is a story of advancement and recession, and of constant failures. The stone grave Indians were not an exception.

In an evil hour, unhappily, some more savage tribe or tribes from the north, or northeast, perhaps the ancestors of the rapacious and vindictive Iroquois, came down upon their peaceful and industrious settlements, burned and destroyed their humble homes and scattered or absorbed the survivors. The period of this catastrophe, or succession of disasters, was probably not very remote, but we can only trace their history through the interesting remains found in the graves and mounds of their ancient cemeteries.

G. P. THRUSTON.

NOTE.—There are a number of fine collections of Tennessee antiquities at Nashville. The Tennessee Historical Society has a quite complete and valuable collection. The Hicks collection is rich in fine and rare flints. Dr. R. A. Halley, Mr. Otto Giers, and Mr. W. E. Metzger have collections of pottery from the graves. Gen. J. T. Wilder, of Chattanooga, has also a large and most interesting collection. The writer, in arranging his exhibit at St. Louis, was especially indebted to Dr. Halley and Mr. Robert T. Quarles, of Nashville, who have devoted years to the study of Tennessee antiquities and are among our best authorities upon this subject.

Wisconsin Archeological Society.

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Our Aim—To Study—Preserve—Record—Wisconsin Antiquities.

Vol. 3.

JANUARY, 1904.

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Wisconsin Archeological Society.

MILWAUKEE, WIS.

Incorporated March 23, 1908, for the purpose of advancing the study and preservation of Wisconsin antiquities.

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All communications in regard to the Wisconsin Archeological Society, or to the "Wisconsin Archeologist" should be addressed to Hester A. Crosby, 260-22 First Insurance Building, Milwaukee, Wis.

AN APPEAL TO MEMBERS FOR CO-OPERATION AND ASSISTANCE IN CONDUCTING SURVEYS AND INVESTIGATIONS IN THE WISCONSIN FIELD.

After a long period of patient waiting, the season favorable for activity in the local Archeological field is about to open, and the Wisconsin Archeological Society therefore takes this opportunity to appeal to its members, and especially to those who in the past have failed to respond to its repeated calls for assistance in extending and completing its surveys and researches in many sections of the state.

It is hoped that every member will heed this appeal and consider it his duty to acquaint himself, without further delay, with the character, exact location, number, extent, history and tradition of the mounds, inclosures, village, camp, workshop and quarry sites, trails, caches, cornfields, refuse heaps, ordinary, trench and gravel-pit burials, and other aboriginal remains now or formerly existing in his district, township or county and fully report on the same to the Society.

The rapidity with which local traces of aboriginal occupation are disappearing, renders it of the greatest importance, that all surveys and investigations be undertaken and completed as soon as possible, and that a copy of all results whether of the nature of descriptions, notes, clues, newspaper clippings, references, maps, plans, sketches, photographs or materials should be carefully assembled and forwarded to the Society for safe keeping and future reference.

It is especially desired, during the present season, to complete if possible the work already far advanced, in the counties of Brown, Dodge, Green Lake, Manitowoc, Richland, Sank, Sheboygan, Waukesha and Waupaca, in order that summaries of the antiquities of those counties may be published, and members residing therein are urged to devote their energies to the accomplishment of this necessary task.

In the counties of Calumet, Grant, Jefferson, Kenosha, Portage, Washington, Washburn and Waushara investigations have been begun by resident members and should be continued.

Members living in the counties of Columbia, Crawford, Dane, Fond du Lac, Green, Iowa, Lafayette, Langlade, Marathon, Marquette, Outagamie, Ozaukee, Walworth and Vilas and from whom promises of assistance have been received in the past, are requested to redeem the same by rendering all possible assistance.

The Society still desires intelligent and competent representatives in the following counties: Adams, Ashland, Barron, Bayfield, Buffalo, Burnett, Chippewa, Clark, Door, Douglas, Dunn, Eau Claire, Florence, Jackson, Juneau, Kewaunee, La Crosse, Lafayette, Lincoln, Marinette, Pepin, Pierce, Polk, Price, Shawano, St. Croix, Trempealeau and Vernon.

Members are requested to make inquiries and forward to the Secretary the names of any persons residing in these or other counties, who may be able or willing to assist the Society in the making of investigations or collection of archeological data.

Members visiting or intending to visit or sojourn in any of the above mentioned districts are requested to communicate the same to the Secretary.

On application to the Secretary, lists of the antiquities already described from any of these counties, together with full instructions for conducting further investigations, will be issued to members and others desiring to participate.

All credit will be given in future publications to all who assist.

CHARLES E. BROWN,

Chairman, Committee on Survey, Research and Record.



Our Aim—To Study—Preserve—Record—Wisconsin Antiquities.

Vol. 3.

APRIL, 1904.

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OF
WISCONSIN.

Wisconsin Archeological Society.

MILWAUKEE, WIS.

Incorporated March 23, 1903, for the purpose of advancing the study and preservation of Wisconsin antiquities.

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Meetings.

These are held in the Lecture Room in the Museum-Library Building, in Milwaukee, on the third Monday of each month, at 8 P. M.

During the months of July and August no meetings will be held.

The Executive Board meets on the second Monday in each month.

MEMBERSHIP FEES.

Life Members.....	\$25.00
Resident Members.....	\$8.00 per Annum
Non-Resident Members.....	\$1.00 per Annum

All communications in regard to the Archeological Society or to the "Wisconsin Archeologist" should be addressed to Henry A. Crosby, No. 44 New Insurance Building, Milwaukee, Wis.



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THE WISCONSIN ARCHEOLOGIST



TENNESSEE ARCHEOLOGY
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