

AN INDIANA SHELL MOUND.

BY W. S. BLATCHLEY.

Some six or seven years ago while looking up the road materials of Martin County, Indiana, I noted on the northwest quarter of section 36 (3 N.—4 W.) of an old county map which I had in hand the words "shell mound." I asked my companion, a resident of the town of Shoals, if there was a mound at the place so marked. He did not know but proposed that we drive out and ascertain. As our afternoon's work took us near the place, on returning we drove in a gateway and along a private road which followed the bank of White River for half a mile or more. While so doing we met the owner of the land, one Thomas Ghornley of Shoals, who returned with us and led us to the site of the so-called mound. It was on the crest of a sandstone bluff on the south side of White River and one hundred and twenty feet above the water. Here, on a level tract of several acres, the surface nearest the brink of the bluff was a few feet higher than that back of it and through the soil was here and there protruding a broken shell of a *Unio* or fresh water mussel. One or two small openings had been made by some superficial investigator which showed the shells to be closely massed a foot or so below the surface. Having no tools for digging I at that time made no farther observations, but resolved to return for a thorough investigation.

The next summer, accompanied by James Epperson, State Mine Inspector, I spent two days at the place and found it to be an extensive kitchen-midden or refuse heap of some ancient race. They probably had their village site on the level tract to the south or back of the shell heap and had dumped the shells, after the animals had been extracted, on the edge of the bluff. The area covered by the shells and other remains was found to be one hundred and seventy-feet in length from east to west by sixty-five feet in width from north to south, the edge nearest the bluff being curved or in a half circle. Over most of that area the shells were from three and a half to four and a half feet in thickness and covered with one to one and a half feet of sod and soil, through which in many places the shell fragments had worked to the surface. At several points

on the slopes there was found to be a layer of shells, then a layer of several inches of soil, followed by another layer of shells, this indicating an irregularity of dumping, brought about perhaps by the village site being vacated at intervals. In the thickest portion of the heap the shells were occasionally mixed with much humus, but for the most part they were nearly clean, appearing as if but recently dumped, though rapidly disintegrating when exposed. They represented the more common species of mussels now occurring in the river, but were mostly of small size. Among those noted were *Unio triangularis*, *luteolus*, *ligamentinus*, *teres*, *rectus*, *circulus*, *donaciformis*, *tuberculatus*, *irroratus*, *gibbosus*, *plicatus*, *undulatus*, *cylindricus*, *metacerrus*, *lachrymosus*, *pustulosus*, *rubiginous*, etc. Numerous specimens of fresh water univalve shells of the genera *Pleurocera* and *Campeloma* were mixed among the bivalves, as were also fragments of elks' and deers' horns and bones of various mammals. Almost all the bones, even the smaller ones, had been split for the marrow.

Mixed with the shells were also many fragments of sandstone rock about 3 x 2 x 3 inches which appeared as if they had been exposed to fire; also small pieces of charcoal and in two or three places thin beds of ashes tightly cemented together.

One very small fragment of coarse pottery of a reddish hue was found and one or two imperfect flint arrow-heads. The most interesting artificial objects taken were a number of bone awls and thicker pieces of bone sharpened down to serve as prys in opening the shells. The majority of the awls were broken, but of some all the pieces were found and cemented together. One had an eye or small opening at the end and had doubtless served as a needle. Some fragments of red orpiment or clay from which it is burned were also found.

T. Ghormley, the owner of the land, has ploughed up two small axes and a number of flints, stone hammers, etc., from the supposed village site just south of the shell heap. Whether these belonged to the people who dumped the shells or to a later race which afterward inhabited the same site, there is no means of telling. They would indicate, however, that the former owners lived in the stone age before the advent of the white man with his weapons and implements of metal. By the best authorities such mounds in other localities are referred to the early part of the Neolithic age when the art of polishing flint instruments was known but before it had reached its greatest development.

Similar shell heaps are known to occur in a number of places in Indiana, though but few if any of them have been thoroughly investigated. Along the Ohio River in Clark County there is one near the mouth of Fourteen-mile Creek and another two miles east of New Washington. The large one formerly at Clarksville, just below Jeffersonville, has been mostly eroded away by the stream. Others occur on the banks of the Ohio in Perry and Posey Counties. On a high bluff just below New Harmony there is a large kitchen-midden, and also another on the Wabash near Merom, Sullivan County.

All of these Indiana refuse heaps are composed mainly of the shells of *Unio*, and show that that mollusc once formed an important element in the food supply of an ancient people. The larger number of *Unios* in our streams have in recent years been removed to furnish ornaments, not food, for the over-civilized white man. It might be well for him to cultivate a taste for these fresh water clams and so add another variety of food to his menu, thereby reducing in slight degree the high cost of living of which he now so much complains. I do not know, however, that I would advise him to try any of those (if any there be) in the West Fork of White River between Indianapolis and Martinsville.

Shell mounds or kitchen-middens of marine shells, some of them of great size, occur frequently along the Atlantic coast and are especially numerous in Florida. They have not as yet received the close attention from archaeologists that those of Europe have had. A thorough study of them would, without doubt, disclose many points of interest regarding the food habits and domestic life of our prehistoric races.

It was from one of these refuse heaps, 1,136 feet in length and with an average width of 160 feet, located near Ormond, Florida, that, in 1899 I secured the bones of the Great Auk, and so extended the known range of that now extinct marine bird more than 1,100 miles.

