

half inches to two inches in diameter, which have been likened to the bosses observed on harnesses. Concerning their use, nothing is definitely known, but it is presumed that they were destined for purposes of ornament. The manipulation of pressure was likewise employed in making smaller articles of decoration resembling the convex metal buttons still seen on the clothes of the peasantry of Germany and other European countries. However, in minutely describing these remarkable products of aboriginal art, I would merely repeat what already has been stated, detailed accounts being given in the well-known work of Messrs. Squier and Davis.

Although the fire on the hearths or altars now inclosed by the sacrificial mounds* was sometimes sufficiently strong to melt the deposited copper articles, it does seem that this proceeding induced the ancient inhabitants to avail themselves of fire in working copper; they persisted in the tedious practice of hammering. Yet one copper axe, evidently *cast*, and resembling those taken from the mounds of Ohio, has been ploughed up near Auburn, in Cayuga County, in the State of New York.† This specimen, which bears no traces of use, may date from the earlier times of European colonization. It certainly would be wrong to place much stress on such an isolated case. The Indians, moreover, learned very soon from the whites the art of casting metals. For this we have the authority of Roger Williams, who makes the following statement in reference to the New England Indians; "*They have an excellent Art to cast our Pewter and Brasse into very neate and artificiall Pipes.*"‡

In the Lake Superior district, resorted to by the aboriginal miners, there have been found, besides many grooved stone hammers (sometimes of very large size) and rude wooden tools, various copper implements, such as chisels, gads, &c., and some spear-heads in which, in lieu of a socket, the flat sides at the lower end are partly bent over,§ a feature also peculiar to certain European bronze celts, which, on this account, are denominated "winged" celts.

The copper-lands of Northern Michigan, it has been stated, were visited by the aborigines for the sake of obtaining copper at a period anteceding the arrival of the whites. It is probable that small bands of various northern tribes made periodical excursions to that locality, returning to their homes when they had supplied themselves with sufficient quantities of the much-desired metal. The indications of permanent settlements, namely, burial-places, defensive works, traces of cultivation and

* For a precise description of the remarkable stratified mounds denominated "sacrificial," I must refer to the "Ancient Monuments of the Mississippi Valley." Burned human bones being often discovered in them in connection with manufactured objects, Sir John Lubbock suggests that these mounds are of a sepulchral rather than a sacrificial character. (Prehistoric Times, first ed., p. 219, &c.)

† Squier, *Aboriginal Monuments of the State of New York*, Washington, 1849, p. 78.

‡ Roger Williams, *A Key into the Language of America*; Providence, 1827, p. 55. (Reprint of the London edition of 1643.)

§ Whittlesey, *Ancient Mining*, &c.