

impart to the copper a definite form, he showed a superior ingenuity. The northern Indian simply took a stone, and by physical force hammered the metal into the required shape. But the skilled workman of Tecoa-tega and Tezcucó, subjecting the native copper to the heat of the furnace cast the wood-cutter's axe in a mould, as well as the bracelets and the fragile ear-rings that adorned the princesses of Montezuma."

The fact of smelting metal is proven by the picture tables, called the *Codices Mexicana*, containing representations of their early historical, religious, social and commercial life. Reproductions of these ancient pictures may be seen in Lord Kingsborough's great work on *Mexican Antiquities*—one of which shows a native in a sitting posture, blowing apparently a pipe or flute to increase the heat of the fire on the tripod before him, on which appears a crucible containing metal.

And melting was followed by casting into forms or moulds, as is plainly indicated by Torquemada, in his *Monarquía Indiana*, 1613, in which he says: "The goldsmiths did not possess the tools necessary for hammering metals, but *with one stone placed above another one*, they made a flat cup or a plate"—so the moulds were made of stone. Gomara, another early writer who was secretary to Cortez, in his *Historia General de las Indias*, 1552-55, observes of the native Mexican goldsmiths, "they will cast a platter in a mould."

We learn from Bernal Diaz, in his *History of the Conquest of New Spain*, 1632, that Cortez had seen for sale in Mexico, "trinkets made of gold and silver, of lead, bronze, copper and tin;" and Diaz, his companion, adds: "I saw axes of bronze, and copper, and tin." So the great Spanish conqueror took joy and courage when he now discovered not only a ready means of replacing the arms he had lost, but also a source from which to equip his faithful Indian allies; and Cortez immediately ordered the native goldsmiths of Tezcucó to cast eight thousand arrow-heads of copper, and these weapons were made ready for delivery within a single week.

It is quite apparent that the Mexican natives were no rude workers in casting metals; and it is not far-fetched to infer that